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Bureau of Mines

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April 1976

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A Revision of Report of Investigations 7633

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A Revision of Report of Investigations 7633

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SULFUR REDUCTION POTENTIAL OF THE COALS OF THE UNITED STATES

A Revision of Report of Investigations 7633

by

J. A. Cavallaro, M. T. Johnston, and A. W. Deurbrouck

ERRATA

On page 30, the paragraph numbered 5 should begin as follows:

The 44 Western Midwest Region coal samples evaluated contained an average of 3.58 percent pyritic sulfur and 5.25 percent total sulfur.

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SULFUR REDUCTION POTENTIAL OF THE COALS OF THE UNITED STATES

A Revision of Report of Investigations 7633

by

J. A. Cavallaro,[1] M. T. Johnston,[2] and A. W. Deurbrouck[3]

ABSTRACT

This report presents the results of a washability study of 455 raw coal channel samples with special emphasis on sulfur reduction. These raw coals contained on the average 14.0 percent ash, 1.91 percent pyritic sulfur, and 3.02 percent total sulfur.

The complete washability data are presented for each sample processed. A statistical evaluation is included for the coalbeds from which more than 10 samples were collected and for the geographical coal producing regions. A graphical summation is presented for the coal producing regions and selected coalbeds. Finally a similar statistical evaluation is included showing composited data interpolated at Btu recovery levels of 50, 60, 70, 80, 90, and 100 percent. Graphical summations are presented for the various coal producing regions.

Generally, significant sulfur reduction is achieved if the coals are crushed to a finer size and the higher specific gravity increments are removed. If a 50-percent Btu recovery was acceptable, then 32 percent of the samples tested could be upgraded to meet the current Environmental Protection Agency (EPA) standard of 1.2 pounds of SO_2 emission per million (MM) Btu when crushed to 14-mesh top size and separated gravimetrically.

INTRODUCTION

The Air Quality Act of 1963 initiated a concerted effort by Federal and local governments to preserve the Nation's air quality. Because air pollution from combustion of fossil fuels has long been recognized as a problem by the EPA and its earlier counterparts, major emphasis has been placed on the development of methods for controlling sulfur oxide emissions.

Coal-fired electric utility plants are the major source of sulfur oxide air pollution in the United States today. In 1974 the electric utilities burned 390 million tons of coal with an average sulfur content of 2.2 percent. The amount of coal consumed by electric utilities is anticipated to reach 500 million tons by 1980 and approximately a billion tons by the year 2000. It is therefore imperative that sulfur oxide emissions be controlled.

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[1] Supervisory chemical engineer.
[2] Mathematician.
[3] Chief, Coal Preparation and Analysis Group.

Available methods for controlling sulfur oxide emissions from stationary combustion sources fall into the following major categories:

1. The physical removal (coal cleaning) of pyritic sulfur prior to combustion.

2. The removal of sulfur oxides from the combustion flue gas.

3. Conversion of coal to a clean fuel by such processes as gasification, liquefaction, and chemical extraction.

Of these three methods, physical removal of pyritic sulfur is the most developed method technologically and is potentially lowest in cost. However, the amount of sulfur reduction that might be obtained is limited, since only pyritic sulfur can be removed.

Sulfur in coal occurs in three forms: organic, sulfate, and pyritic. Organic sulfur, which is an integral part of the coal matrix and which generally cannot be removed by direct physical separation, comprises from 30 to 70 percent of the total sulfur of most coals.

The sulfate sulfur content is normally an oxidation product which is water soluble and can be removed readily during coal cleaning. Sulfate sulfur contents are usually less than 0.05 percent in fresh coal.

Pyritic sulfur is the mineral pyrite which occurs in coal as discrete particles, although often of microscopic size. It is a heavy mineral which has a specific gravity of about 5.0, compared to coal which has a maximum specific gravity of only 1.7. The pyrite content of most coals can be reduced significantly by utilizing coal preparation methods of size reduction and gravimetric separation.

To determine the preparation method and the equipment needed to clean a coal, washability tests must be conducted. A washability analysis is an evaluation of those physical properties of a coal which determine its amenability to improvements in quality by cleaning. This includes stage crushing to release impurities and specific gravity fractionation to show the quality and quantity of the cleaned product. A washability study is made by testing the coal sample at preselected, carefully controlled specific gravities. This is termed "float-sink" analysis or specific gravity separation. Heavy organic liquids are commonly used to obtain the desired specific gravities of separation. Chemical analyses of the various specific gravity fractions of the coal are used to compile the washability data which indicate how well the coal can be prepared.

In 1965, the Federal Government funded a study by the Bureau of Mines to determine the forms of sulfur in the major sources of utility steam coals and the washabilities of these coals. To accelerate this program, in 1967, the Federal Government funded a similar study of 2 years duration to be carried out by the Commercial Testing and Engineering Co. The data in this report were compiled from the work done by these two organizations.

This report is an update of an earlier Bureau of Mines publication which summarized the washability characteristics of 322 raw coal channel samples.[4]

ACKNOWLEDGEMENTS

This report was made possible by the cooperation and assistance of the officials of the mines from which coal samples were collected and the National Coal Association. The authors wish to thank R. A. Welsh and P. Sutton for collecting the samples and H. H. Hensley and his staff for performing the washability analysis on the various coal samples.

The work was funded by the Environmental Protection Agency and the authors wish to acknowledge the assistance of T. Kelly Janes and James D. Kilgroe from the Industrial Environmental Research Laboratory of the Environmental Protection Agency, Research Triangle Park, Durham, N.C.

TEST PROCEDURE

Collection of Samples

Face samples were collected from surface and deep mines which were producing coal primarily for consumption by electric utilities. In general, an attempt was made to sample the largest utility coal producing mines in the United States; therefore, the 455 coal mine samples reported in this publication represent mines which provide more than 70 percent of the annual utility coal production.

Face samples were collected according to the procedure recommended by Fieldner and Selvig[5] and Holmes,[6] except that the dimensions of each sample cut were expanded to permit 600 pounds of coal to be taken from the face. Partings and impurities were not removed from the samples unless otherwise noted. The face was cleared of loose coal or dirt for a width of approximately 5 feet. Loose pieces of roof were also taken down to prevent their falling into the sample while it was being obtained. Within the cleaned off area on the face, the coal was cut from the roof to the floor in a channel 1 inch deep and about 3 feet wide to remove any altered or otherwise inferior coal. The floor was then cleared and smoothed and a sampling cloth was spread prior to collecting the sample.

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[4] Deurbrouck, A. W. Sulfur Reduction Potential of the Coals of the United States. BuMines RI 7633, 1972, 289 pp.

[5] Fieldner, A. C., and W. A. Selvig. Notes in the Sampling and Analysis of Coal. BuMines Tech. Paper 586, 1938, 48 pp.

[6] Holmes, J. A. The Sampling of Coal in the Mine. BuMines Tech. Paper 1, 1918, 22 pp.

The actual channel sample was cut perpendicular to the lay of the coalbed, approximately 10 inches deep and wide enough to provide a sample of 600 pounds. For example, for a 4-foot-thick coalbed a channel 30.5 inches wide would be collected. The exception to this rule would be when a strip mine sample is obtained where the overburden has been removed. In this case, the depth and width of the channel would be equal. For example, for the 4-foot-thick bed noted above, the channel would be 17.5 inches deep by 17.5 inches wide. The collected sample includes all partings and other impurities occurring in the channel.

Sample Preparation

The 600-pound channel samples collected in the field are loaded into steel drums and returned to the coal preparation laboratory for processing. The sample preparation procedure is outlined in the flowsheet shown in figure 1. Each sample to be tested is air dried and then crushed to 1-1/2-inch top size using a single roll crusher. The sample is then coned, long piled, and shoveled into four pans, according to ASTM specifications, and divided into two portions by combining opposite pans.

One of the 1-1/2-inch by 0 portions is processed as is; the other portion is crushed in a jaw mill to 3/8-inch top size. This 3/8-inch by 0 material is then riffled into two portions; one is processed as is (3/8-inch by 0) and the other is crushed to 14-mesh top size in a hammer mill and processed.

A head sample is riffled from the 14-mesh by 0 portion for proximate analysis (moisture, ash, volatile matter, and fixed carbon) and for determination of calorific value, fusibility of ash, free-swelling index, Hardgrove grindability index, and sulfur forms and content (pyritic, organic, and total). Since the minus 100-mesh material represents such a small percentage of the weight of the two coarser size fractions analyzed, it is removed prior to float-sink testing and is not presented in this report.

The various sized fractions are then float-sink tested at 1.30, 1.40, and 1.60 specific gravities using CERTIGRAV,[7] a commercial organic liquid of standardized specific gravity; the solution tolerance is ±0.001 specific gravity unit and is monitored using a spindle hydrometer. Those samples processed by Commercial Testing and Engineering Co. were further float-sink tested at 1.90 specific gravity.

For the two coarser sizes the separation is made in a screen bottom container which is inserted in 10-gallon-capacity vessels containing the organic liquid. The sample is placed in the 1.30 specific gravity bath, in small quantities to prevent entrapment, and is then stirred and allowed to separate. The lighter specific gravity coal fraction is removed from the surface of the

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[7] Reference to specific brands does not imply endorsement by the Bureau of Mines.

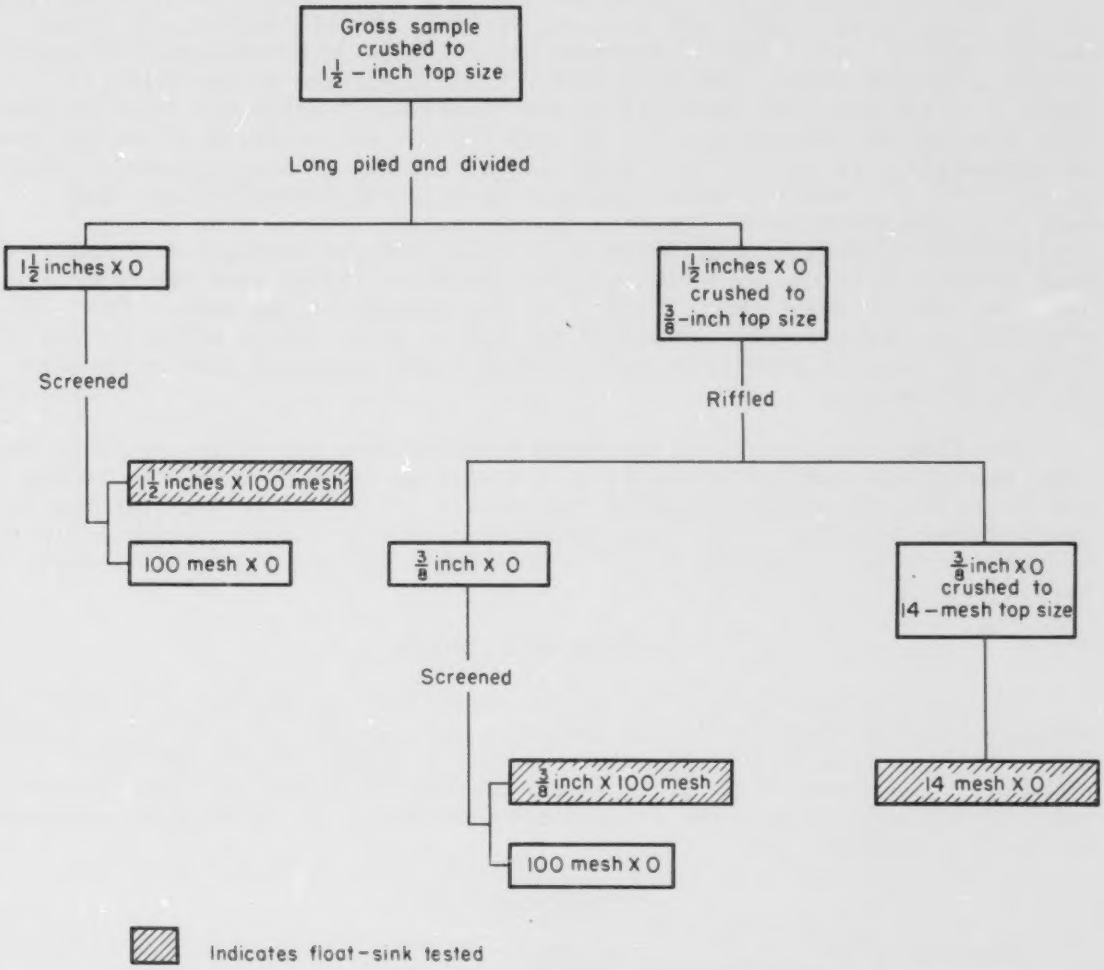

Gross sample crushed to 1½ – inch top size
Long piled and divided
1½ inches X 0
1½ inches X 0 crushed to ⅜-inch top size
Screened
Riffled
1½ inches X 100 mesh
100 mesh X 0
⅜ inch X 0
⅜ inch X 0 crushed to 14 – mesh top size
Screened
⅜ inch X 100 mesh
14 mesh X 0
100 mesh X 0
Indicates float-sink tested

FIGURE 1. - Flow diagram showing preparation of face samples.

bath with a screen wire strainer; the heavier specific gravity material settles to the container bottom which is then raised above the liquid level to drain. The container with the heavier specific gravity material is then placed in the 1.40 specific gravity solution and the process is repeated. This is continued until the sample is separated into the desired specific gravity factions.

For the 14-mesh by 0 size fraction, the separation is made in glass separatory flasks joined by standard ground taper joints. After the sample separates, a stopper is passed through the float layer and inserted into the neck of the separatory funnel. Both products are filtered; the "floats" are dried and prepared for analysis, while the "sinks" are reintroduced into another separatory flask containing a heavier specific gravity liquid and the float-sink procedure is continued.

Upon completion of the float-sink testing, the specific gravity fractions of the three sized samples are analyzed for ash, pyritic sulfur, and total sulfur content. All chemical analyses are reported on a moisture-free basis unless otherwise noted. Raw coal moisture, as presented in the appendix tables, is the moisture contained in the sample after being air dried at the coal preparation laboratory. The air dry loss is not included in the moisture determination. It is felt that under normal conditions the moisture content as reported here would closely simulate the moisture content of the coal burned at the powerplant. Specific gravity separations of fine coal are particularly difficult, especially with coals that are porous and contain high inherent moisture contents, because the heavy liquid used can penetrate the pores and increase the apparent specific gravity of the coal. This explains the unexpectedly low weight recoveries noted occasionally for the float 1.30 specific gravity fraction of the lower rank coal samples crushed to 14-mesh top size.

The float-sink data from the channel samples are not to be construed as representing the quality of the product loaded at the mine where the sample was taken but rather as indicating the quality of the bed in that particular geographical location. Float-sink data are based upon theoretically perfect specific gravity separations that are approached but not equaled in commercial practice.

EXPERIMENTAL RESULTS

Four hundred and fifty-five sets of individual washability data have been compiled to show what effect size reduction and specific gravity fractionation have on the liberation and subsequent removal of pyritic sulfur and other impurities. Because of the gross amount of data available, all the individual washability data plus the statistical summations of the data are presented in three appendixes.

Washability Data

Appendix A is the complete tabulation of the 455 sets of washability data. Cumulative weight and Btu recovery, Btu per pound, ash, pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu levels are given showing theoretical recoveries and product quantities obtained at various specific gravities when the coal samples were crushed to 1-1/2-inch, 3/8-inch, and 14-mesh top sizes. The Btu per pound values for the float 1.60 specific gravity products and the total or raw coal products were obtained by actual analysis; those of the float 1.30, 1.40, and 1.90 specific gravity products were obtained by interpolation from a plot of cumulative ash versus cumulative Btu per pound. The pounds SO_2 emission per million Btu were calculated using the corresponding Btu per pound (moisture-free basis) and total sulfur content (moisture-free basis) and assumes that all of the sulfur in the coal goes out of the stack as SO_2. Actual emissions may vary since as-fired coals will contain some moisture and all of the sulfur may not go out the stack as SO_2.

Evaluation of Washability Data

Appendixes B and C are statistical evaluations of the composited washability data presented in appendix A. The appendixes are broken down by regions in the following manner:

1. Northern Appalachian Region includes the States of Maryland, Pennsylvania (bituminous), and Ohio and those 40 counties located in central and northern West Virginia as follows:

Barbour
Berkeley
Braxton
Brooke
Calhoun
Clay
Doddridge
Gilmer
Grant
Greenbrier
Hampshire
Hancock
Hardy
Harrison
Jackson
Jefferson
Lewis
Marion
Marshall
Mason
Mineral
Monongalia
Morgan
Nicholas
Ohio
Pendleton
Pleasants
Pocahontas
Preston
Randolph
Ritchie
Roane
Taylor
Tucker
Tyler
Upshur
Webster
Wetzel
Wirt
Wood

2. Southern Appalachian Region includes the States of Tennessee, Virginia, Kentucky (east) and the southern West Virginia counties of Boone, Cabell, Fayette, Kanawha, Lincoln, Logan, McDowell, Mercer, Mingo, Monroe, Putnam, Raleigh, Summers, Wayne, and Wyoming. Actually samples from only two southern West Virginia counties are included in this study--Kanawha and Logan--because the coals in this area are known to be of low sulfur content as mined.

3. Alabama Region includes only the State of Alabama.

4. Eastern Midwest Region includes the States of Illinois, Indiana, and Kentucky (west).

5. Western Midwest Region includes the States of Arkansas, Iowa, Kansas, Missouri, and Oklahoma.

6. Western Region includes the States of Arizona, Colorado, Montana, New Mexico, North Dakota, Utah, and Wyoming.

Data from the various regions are shown composited by coalbeds, giving the number of samples collected from a coalbed by States, and the total number of samples collected from the coalbed.

These data and a composite of all the samples collected for each individual coalbed, or a composite of all the samples collected for all the coalbeds of a region, showing the effect on ash, pyritic sulfur, and total sulfur contents when crushing the coal to three top sizes, 1-1/2 inches, 3/8 inch, and 14 mesh. Average values are given plus standard deviation (sigma) values. Average values are the arithmetic means of the data involved in computing any given average. Since the number of pieces of data involved in the computation of an average gives a reader one measure of credence of the average, this number is shown in all output. Sigma values are given to show the spread of the data about the average. This sigma is the standard deviation of a sample of numbers and is defined as the root mean square deviation. For a normal distribution, 68 percent of the cases should fall between the "average" ($\bar{X}$), ± s; 95 percent of the cases between the "average" $\bar{X}$ ± 2s, and 99.7 percent of the cases between the "average" $\bar{X}$ ± 3s. Thus, it is desirable to have "N," the number of samples, large and s, "sigma," as small as possible.

Appendix B is a composite, by specific gravity fractions, of all the washability samples of a particular coalbed in a State and a region showing the effects of crushing and gravimetric separation on these coals.

For example, on page 272 (appendix B), 41 samples were collected from the Pittsburgh bed coal for this study; of these, 1 was from Maryland, 18 were from Ohio, 6 were from Pennsylvania, and 16 were from West Virginia. Starting from the left side of the page, the data show in detail the average ash content of the Pittsburgh bed coal samples collected for this study to be 13.1 percent, ± sigma of 6.8 percentage points. Thus, in 68 percent of the samples tested, the raw coal ash content would range from 6.3 to 19.9 percent. The average pyritic sulfur content was 2.17 percent, ±1.0 percentage points. The average total sulfur content was 3.60 percent, ±1.3 percentage points.

At float 1.30 when the sample is crushed to 1-1/2-inch top size, the average ash is 4.2 percent, ±0.7 percentage points; this represents a reduction in ash content of 63 percent, ±11 percentage points. Therefore, in 68 percent of the samples tested, the ash varied from 3.5 to 4.9 percent, representing a reduction in ash content from the raw coal varying from 52 to 76 percent. The corresponding pyritic sulfur content is 0.53 percent, ±0.2 percentage points, thus providing 71 percent reduction over the raw coal, ±23 percentage points. The total sulfur content at float 1.30 would be 2.06 percent, ±15 percentage points.

As the specific gravity of the product increases, so will the Btu recovery and ash content, but the Btu per pound will decrease. As a general rule, the pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu will also increase. However, there are coals which contain almost no pyrite in the associated rock, most of the pyrite occurring with the coal. Such coals will show lower sulfur contents in the higher specific gravity fractions.

As the sample is reduced in size, impurities are released which are removable by float-sink separation. For example, at float 1.30, the ash content is 4.2 percent at 1-1/2-inch top size, 4.0 percent at 3/8-inch top size, and 3.5 percent at 14-mesh top size.

Appendix C shows the effect of crushing on liberation of impurities by showing the quality of the theoretical products, obtained from cumulative interpolated washability data at 50-, 60-, 70-, 80-, 90-, and 100-percent Btu recovery levels. These theoretical products are represented by averages for each of the previously stated levels. The data are arranged the same as for appendix B.

The recoveries are calculated by using the Lagrangian interpolation method described later. Note that the variations in the number of samples processed at each level of recovery reflects the fact that no extrapolation of washability data has been attempted. For example, if a coal showed a float 1.30 Btu recovery in excess of 50 percent, then this sample would not be included in the evaluation since no extrapolations were made.

Generally, these data show that as the recoveries increased, the ash, pyritic sulfur, total sulfur, weight, and pounds of SO_2 emission per million Btu also increased. However, the Btu per pound decreased since the ash content increased. As the sample was crushed, more impurities were released and readily separated. That is, the ash, pyritic sulfur, total sulfur, weight recovery, and pounds of SO_2 emission per million Btu generally decreased while the Btu per pound increased when the sample was crushed to the finer top sizes and the higher specific gravity material was removed.

Figure 2 is nomograph showing the SO_2 emissions which will result from burning coals of various sulfur and Btu contents. When using the nomograph or the formula, one must be consistent and be sure that both the Btu per pound and sulfur values are on an as-received, moisture-free or moisture-and-ash free basis. For example, a coal containing 0.8 percent sulfur and 13,100 Btu per pound would meet the EPA SO_2 emission standard; however, a coal of the same sulfur content but containing only 10,500 Btu per pound would produce 1.5 pounds of SO_2/MM Btu and would not be in compliance.

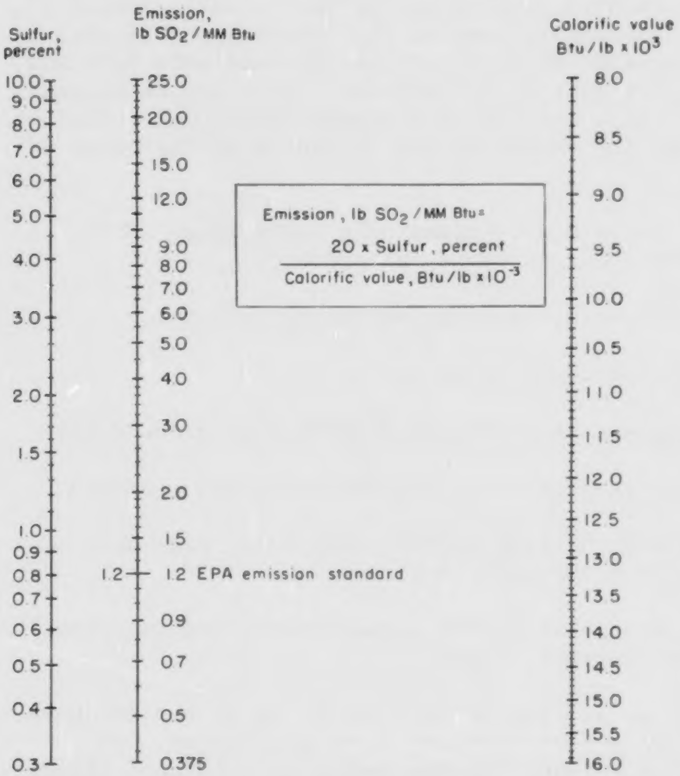


FIGURE 2. - Nomograph relating sulfur content and calorific value in coals to pounds SO_2 emission per million Btu.

Computer Programs

For each mine sample, the following data is entered: State, county, town, mine, and bed codes; laboratory number and laboratory identification code; bed-bench, and size fraction codes; year of sample collection, company, mine, and county name; the specific gravity fractions of separation and their associated levels with the variables, weight and Btu recoveries, ash content, pyritic and total sulfur contents, and pounds of SO_2 emission per million Btu. All chemical analyses are reported on a moisture-free basis.

The initial computer program calculates Btu recovery, Btu per pound and pounds of SO_2 emission per million Btu for the various cumulated float products.

A second computer program was required to make the statistical evaluations. The raw data used consisted of those items calculated in the initial program.

By interpolation the EPA emission standard of 1.2 pounds of SO_2/MM Btu was obtained in the initial computer program. In the second program, interpolation was used to calculate the percentages of ash, pyritic sulfur, total sulfur, weight recovery, Btu per pound, and pounds of SO_2 emission per million Btu for the desired levels of Btu recovery.

In order to interpolate, it is necessary to assume that a valid functional relation exists between the variable used as the interpolant and each of the other variables to be associated with it. Since the available data was recorded at five or fewer levels, it must be assumed that these are sufficient in number and accurate enough to allow the use of a simple functional relation to determine statistically significant values of the variables at the level of the interpolant.

The actual interpolation is performed by means of a subroutine. This subroutine makes the following tests and continues accordingly.

I. Does the interpolant lie within the range of the given data?

A. If yes, the program proceeds to step II.

B. If no, is the interpolant less than or greater than given data?

1. If it is greater, then all the data meets the EPA standard.

II. If the interpolants lie within range of the given data, then determine if the interpolant is equal to a recorded level.

A. If equality occurs, the interpolated values of all the variables are set equal to their respective recorded values.

B. If equality does not occur, the subroutine checks to see if there is sufficient data to perform a three point Lagrangian interpolation. If there is, the desired interpolation is made for the variables. If not, linear interpolation is made.

C. The program then checks to see if the Lagrangian results for each variable interpolated are reasonable using the original data as a yardstick. If not, any specific value is recalculated by using linear interpolation.

Experience has shown that where there is not enough data to produce a sufficiently dense lattice of points, the Lagrangian and similar methods cannot be used as the mathematical model to produce reasonable results.

The second computer program further calculates the averages and standard deviations of the percent ash, pyritic sulfur, and total sulfur for 100-percent recovery as determined from the original data. These averages are found for each bed and the required data accumulated for similar averages for the region. In like manner, the average and standard deviation values are calculated for each set of interpolated values at the various yield levels.

DISCUSSION OF RESULTS

Northern Appalachian Region Coals

Two hundred twenty-seven coalbed samples collected from Maryland (34), Ohio (58), Pennsylvania (103), and northern West Virginia (32) were evaluated. The average raw coal of the region contained 15.1 percent ash, 2.01 percent pyritic sulfur, 3.01 percent total sulfur, and 12,693 Btu per pound which would produce 4.8 pounds SO_2/MM Btu fired at the powerplant.

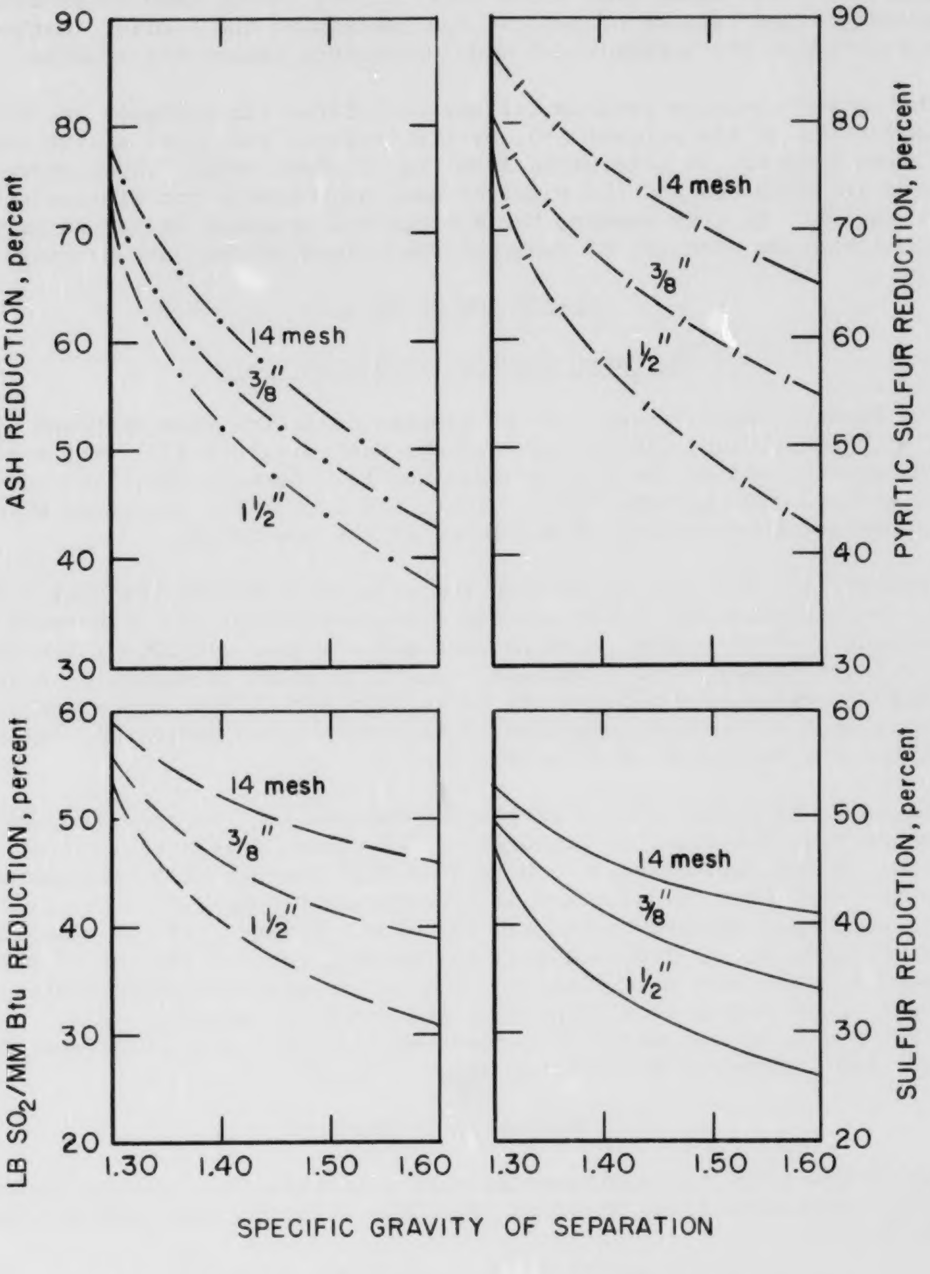
Crushing the raw coal to 14-mesh top size and removing the sink 1.60 specific gravity material would provide a produce analyzing 7.6 percent ash, 0.66 percent pyritic sulfur, 1.66 percent total sulfur and 13,821 Btu per pound, a Btu recovery of 92.1 percent. Thus, as shown in figure 3, coal preparation techniques would provide an average pyritic sulfur reduction of 65 percent, a total sulfur reduction of 41 percent, and pounds SO_2 emission per million Btu reduction of 46 percent.

Figure 4 shows that only 4 percent of the raw coal samples as mined could meet the current EPA emission standard of 1.2 pounds SO_2/MM Btu. Only 12 percent of the samples would comply at a Btu recovery of 90 percent when crushed to 1-1/2-inch top size and 31 percent would comply at a Btu recovery of 50 percent when crushed to 14-mesh top size. However, if the emission standard were raised to 2.0 pounds of SO_2/MM Btu, then 15 percent of the raw coal samples would meet this standard with no preparation, approximately 35 percent would comply at a 90-percent Btu recovery when crushed to 1-1/2-inch top size, and about 70 percent would comply at a 50-percent Btu recovery when crushed to 14-mesh top size.

Sewickley Coalbed

The 15 Sewickley bed coal samples were collected from four Northern Appalachian Region States: Maryland (2), Ohio (10), Pennsylvania (2), and West Virginia (1).

In general this coal showed significant pyritic sulfur liberation; however, because the organic sulfur content averaged 1.69 percent, the total sulfur content remained high regardless of the projected gravimetric separation. The average total sulfur content of this coalbed varied from as high as 4.45 percent in Ohio to as low as 1.32 percent in Maryland.



Northern Appalachian region (227 samples)

FIGURE 3. - The effect of crushing to 1-1/2-inch, 3/8-inch, and 14-mesh top size on the reduction of ash, pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu at various specific gravities of separation for the Northern Appalachian Region coals.

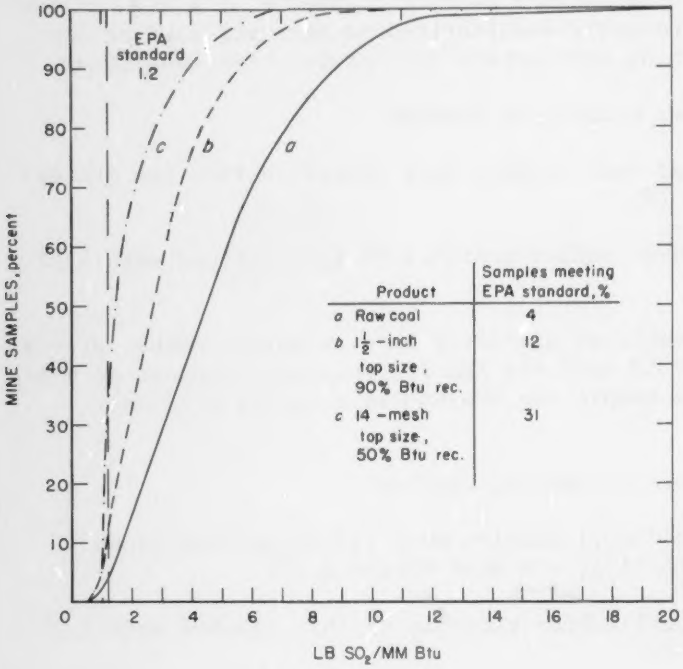


FIGURE 4. - Percent of Northern Appalachian Region coal samples meeting the current EPA standard of 1.2 pounds SO_2/MM Btu with no preparation, curve *a*; compared with those crushed to 1-1/2-inch top size at a Btu recovery of 90 percent, curve *b*; and those crushed to 14-mesh top size at a Btu recovery of 50 percent, curve *c*, and separated gravimetrically.

Pittsburgh Coalbed

The 41 Pittsburgh bed coal samples were collected from four States: Maryland (1), Ohio (18), Pennsylvania (6), and West Virginia (16).

This coal also showed significant pyritic sulfur liberation; however, because the organic sulfur content of this coal averaged 1.43 percent, the total sulfur content remained high regardless of the projected gravimetric separation. The average total sulfur content of this coal varied from as high as 4.19 percent in Ohio to as low as only 0.85 percent in Maryland.

Upper Freeport Coalbed

The 33 Upper Freeport bed coal samples were collected from three States: Maryland (7), Pennsylvania (20), and West Virginia (6).

The average pyritic sulfur and total sulfur contents of this coalbed were 1.77 and 2.45 percent. However, when this coal is crushed to 14-mesh top size, it can be gravimetrically upgraded to provide an average product which would meet the EPA SO_2 emission standard at a Btu recovery of 70 percent.

The Upper Freeport coalbed is an excellent example of a high sulfur content coal which can be sufficiently desulfurized to meet the current EPA SO_2 emission standard by utilizing appropriate coal preparation techniques.

Lower Freeport Coalbed

The 13 Lower Freeport bed coal samples were collected from three States: Maryland (1), Ohio (2), and Pennsylvania (10).

The average pyritic and total sulfur content of this coalbed were 1.70 and 2.39 percent. However, when this coal is crushed to 14-mesh top size, it can also be gravimetrically upgraded to provide an average product which would meet the EPA SO_2 emission standard at a Btu recovery of 80 percent.

The Lower Freeport coalbed is another excellent example of a high sulfur content coal which can be sufficiently desulfurized to meet the current EPA SO_2 emission standard by utilizing appropriate coal preparation techniques.

Upper Kittanning Coalbed

The 10 Upper Kittanning bed coal samples were collected from two States: Maryland (2), and Pennsylvania (8).

The average pyritic and total sulfur contents of this coalbed were 1.62 and 2.21 percent.

This coalbed was very amenable to upgrading by gravimetric means, providing an average product which would meet the EPA SO_2 emission standard at a Btu recovery of 70 percent when the sample was crushed to a top size of only 1-1/2 inches.

Middle Kittanning Coalbed

The 27 Middle Kittanning bed coal samples were collected from three States: Ohio (14), Pennsylvania (10), and West Virginia (3).

The average pyritic and total sulfur contents of this coalbed were 1.97 and 3.00 percent, respectively.

This coal showed significant pyritic sulfur liberation; however, because of the high average organic sulfur content of this coal, the average total sulfur content remained high regardless of the projected gravimetric separation.

Lower Kittanning Coalbed

The 47 Lower Kittanning bed coal samples were collected from four States: Maryland (3), Ohio (7), Pennsylvania (33), and West Virginia (4).

The average pyritic and total sulfur contents of this coalbed were 2.16 and 3.01 percent.

This coal also showed significant pyritic sulfur liberation; however, because of the high average organic sulfur content of this coal, the average total sulfur content remained high regardless of the projected gravimetric separation.

The average total sulfur content of this coalbed was much higher in Ohio, 4.14 percent, and Pennsylvania, 3.23 percent, than in Maryland, 0.92 percent, and West Virginia, 0.78 percent.

Southern Appalachian Region Coals

The 35 Southern Appalachian Region coalbed samples were collected from three states: Kentucky (east) (7), Tennessee (8), southern West Virginia (12), and Virginia (8). The raw coal of the region averaged 11.0 percent ash, 0.37 percent pyritic sulfur, 1.03 percent total sulfur, and 13,314 Btu per pound; this would produce 1.6 pounds SO_2/MM Btu fired at the powerplant.

Significant ash and pyritic sulfur reductions are attainable from these coals by gravimetric separations, figure 5, and although the total sulfur reductions are not high, they are adequate to provide an average final product of very low total sulfur content.

Figure 6 shows that 35 percent of the raw coal samples as mined would meet the current EPA standard of 1.2 pounds SO_2/MM Btu. Fifty percent of the samples would comply at a Btu recovery of 90 percent when crushed to 1-1/2-inch top size; 63 percent would comply at a Btu recovery of 50 percent when crushed to 14-mesh top size. However, if the emission standard were raised to 2.0 pounds SO_2/MM, then more than 80 percent of the raw coal samples would meet the standard with no preparation and about 90 percent would comply at a 90-percent Btu recovery when crushed to 1-1/2 inch top size.

Alabama Region Coals

Only 10 raw coal samples were collected from Alabama. The average raw coals of the region contained 9.5 percent ash, 0.69 percent pyritic sulfur, 1.33 percent total sulfur, and 13,696 Btu per pound, which would produce 2.0 pounds of SO_2/MM Btu fired at the powerplant. The coals of this region, although low in total sulfur content, do not respond to upgrading by crushing and gravimetric separation, figure 7.

Figure 8 shows that 30 percent of the raw coal samples as mined would meet the current EPA standard of 1.2 pounds SO_2/MM Btu. Crushing to 14-mesh top size and accepting only a 50-percent Btu recovery would result in only 40 percent of the samples complying. If the EPA SO_2 emission standard were raised to 2.0 pounds SO_2/MM Btu, then more than 60 percent of the raw coal samples would meet the standard with no preparation and all the samples would comply at a 50-percent Btu recovery when crushed to 14-mesh top size.

Eastern Midwest Region Coals

The 95 Eastern Midwest Region samples were collected from three States: Illinois (40), Indiana (20), and Kentucky (west) (35).

The average raw coal from the region contained 14.2 percent ash, 2.29 percent pyritic sulfur, 3.92 percent total sulfur, and 12,189 Btu per pound, which would produce 6.5 pounds SO_2/MM Btu fired at the powerplant.

The average ash and pyritic sulfur contents of these coals were similar to those of the Appalachian Region Coals; however, these coals contained about 0.63 percent more organic sulfur which makes the problem of producing a low sulfur content product much more formidable.

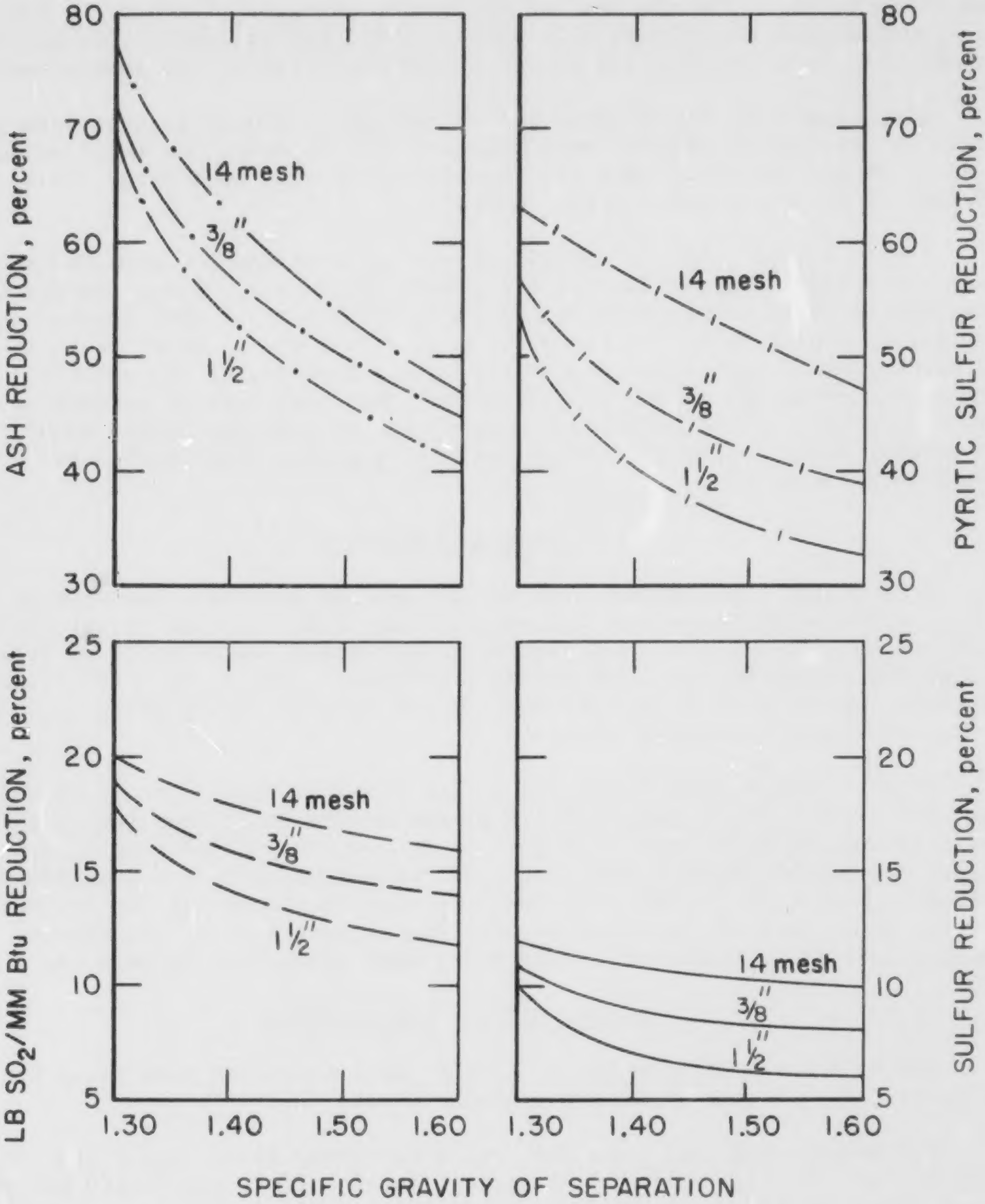
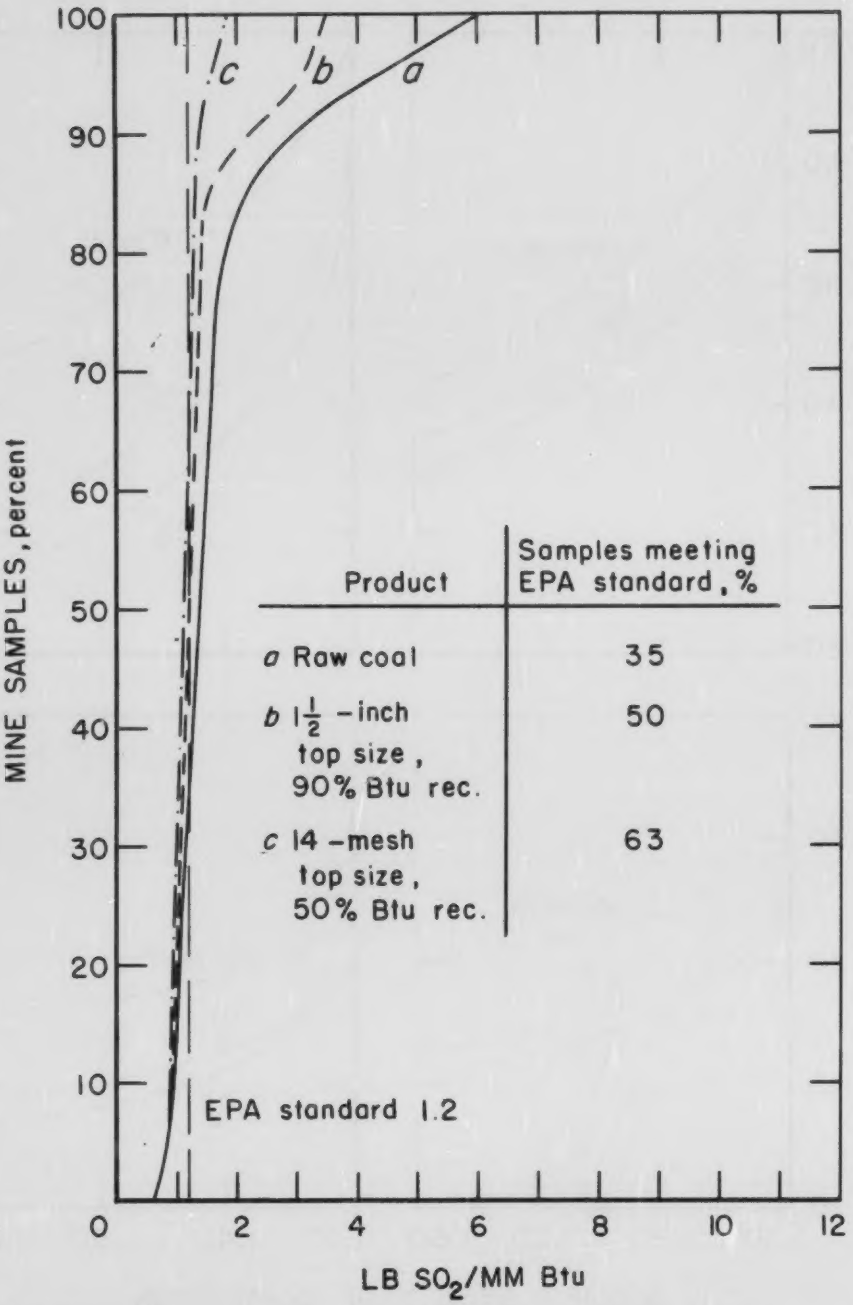
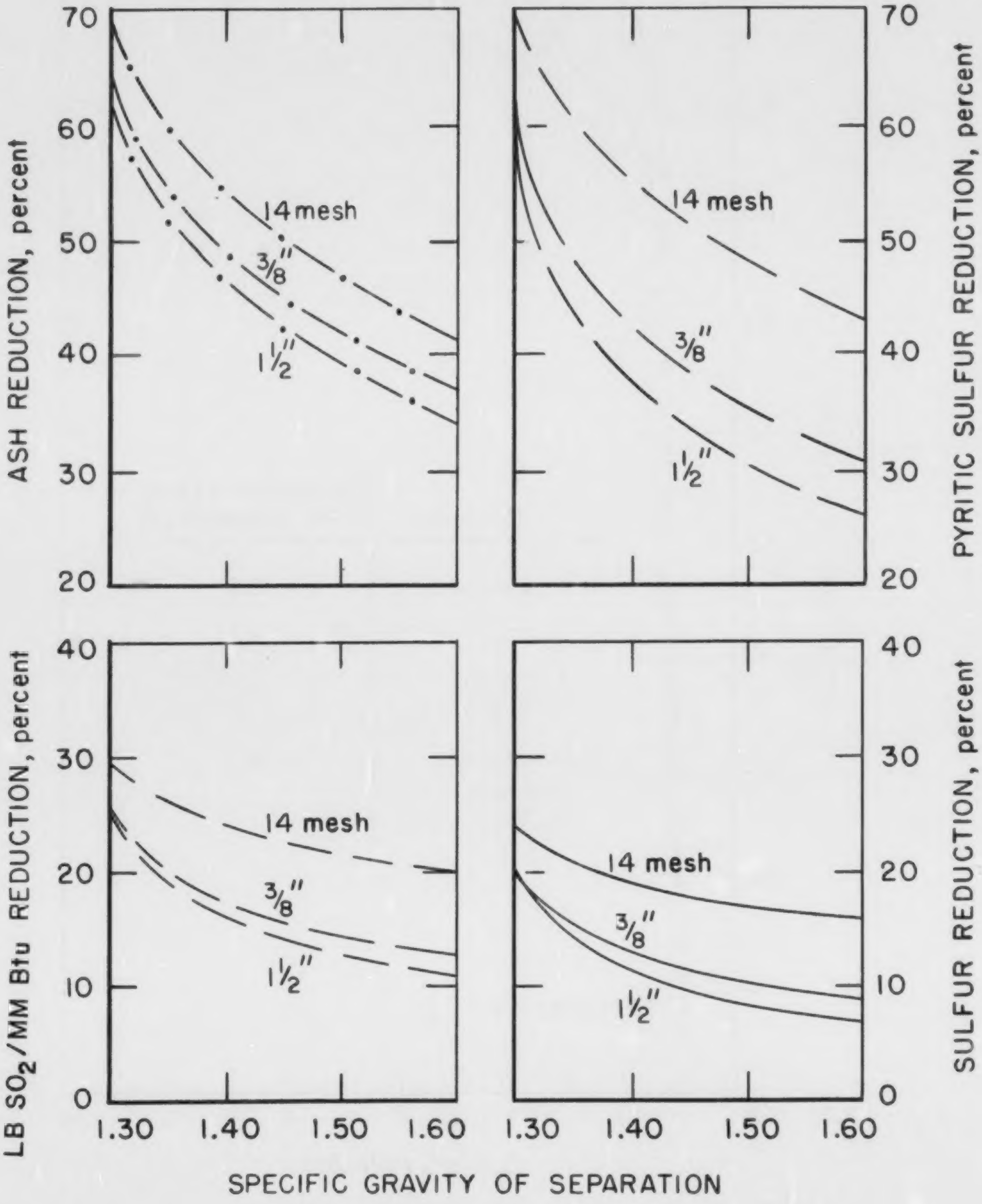


FIGURE 5. - The effect of crushing to 1-1/2-inch, 3/8-inch, and 14-mesh top size on the reduction of ash, pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu at various specific gravities of separation for the Southern Appalachian Region coals.



Product	Samples meeting EPA standard, %
a Raw coal	35
b 1½ -inch top size, 90% Btu rec.	50
c 14 -mesh top size, 50% Btu rec.	63

FIGURE 6. - Percent of Southern Appalachian Region coal samples meeting the current EPA standard of 1.2 pounds SO_2/MM Btu with no preparation, curve *a*; compared with those crushed to 1-1/2-inch top size at a Btu recovery of 90 percent, curve *b*; and those crushed to 14-mesh top size at a Btu recovery of 50 percent, curve *c*, and separated gravimetrically.



Alabama region (10 samples)

FIGURE 7. - The effect of crushing to 1-1/2-inch, 3/8-inch, and 14-mesh top size on the reduction of ash, pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu at various specific gravities of separation for the Alabama Region coals.

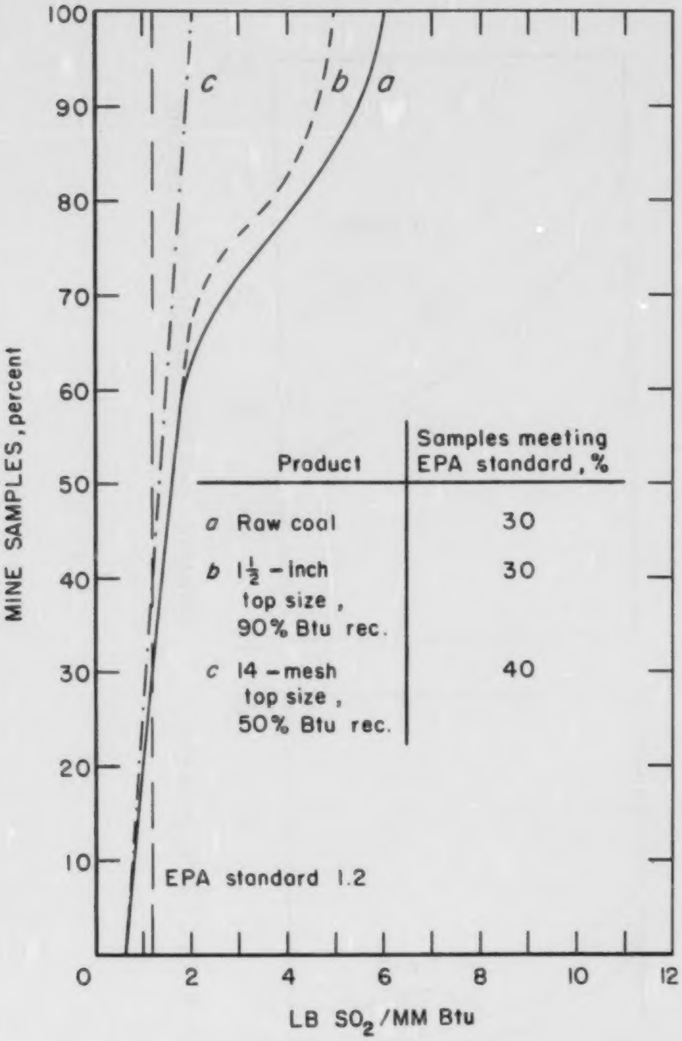
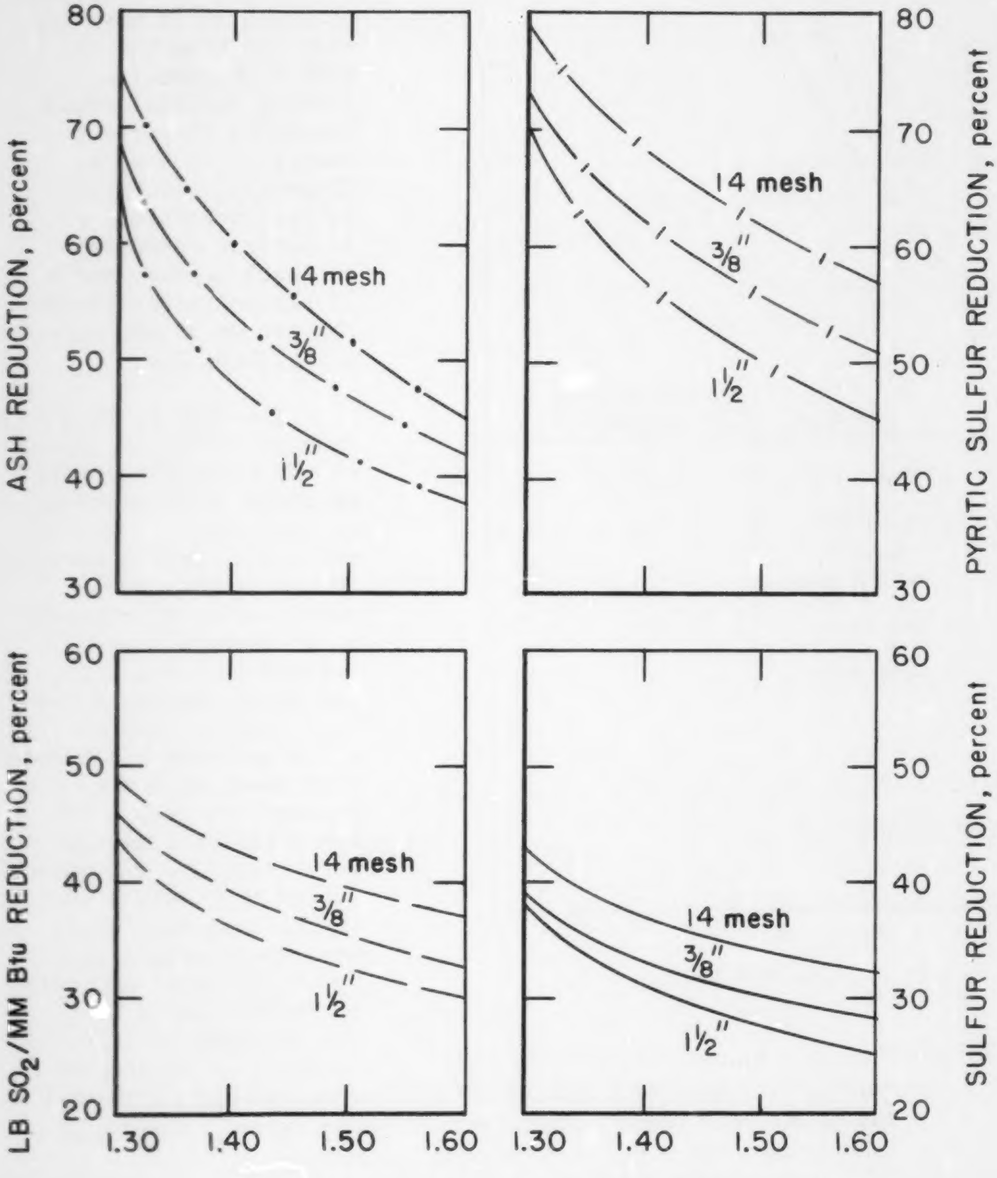


FIGURE 8. - Percent of Alabama Region coal samples meeting the current EPA standard of 1.2 pounds SO_2/MM Btu with no preparation, curve *a*; compared with those crushed to 1-1/2-inch top size at a Btu recovery of 90 percent, curve *b*; and those crushed to 14-mesh top size at a Btu recovery of 50 percent, curve *c*, and separated gravimetrically.

Figure 9 shows that crushing to 14-mesh top size and removing the sink 1.60 specific gravity material would provide a 45-percent reduction in ash, a 57-percent reduction in pyritic sulfur, a 32-percent reduction in total sulfur, and a 37-percent reduction in the pounds of SO_2 emission per million Btu.

The data in figure 10 show that only 1 percent of the raw coal samples as mined would meet the current EPA SO_2 emission standard. Only 2 percent of the samples could comply at a Btu recovery of 90 percent when crushed to 1-1/2-inch top size, whereas 4 percent would comply at a Btu recovery of 50 percent when crushed to 14-mesh top size. If the emission standard were raised to 2.0 pounds SO_2/MM Btu, only 2 percent of the raw coals would meet the standard with no preparation, and only 12 percent would meet the standard at a Btu recovery of 50 percent when crushed to 14-mesh top size.

Although significant numbers of samples were collected from certain coalbeds in the Eastern Midwest Region, individual discussions are not included because of the general likeness in physical characteristics of these coals.



Eastern Midwest region (95 samples)

FIGURE 9. - The effect of crushing to 1-1/2-inch, 3/8-inch, and 14-mesh top size on the reduction of ash, pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu at various specific gravities of separation for the Eastern Midwest Region coals.

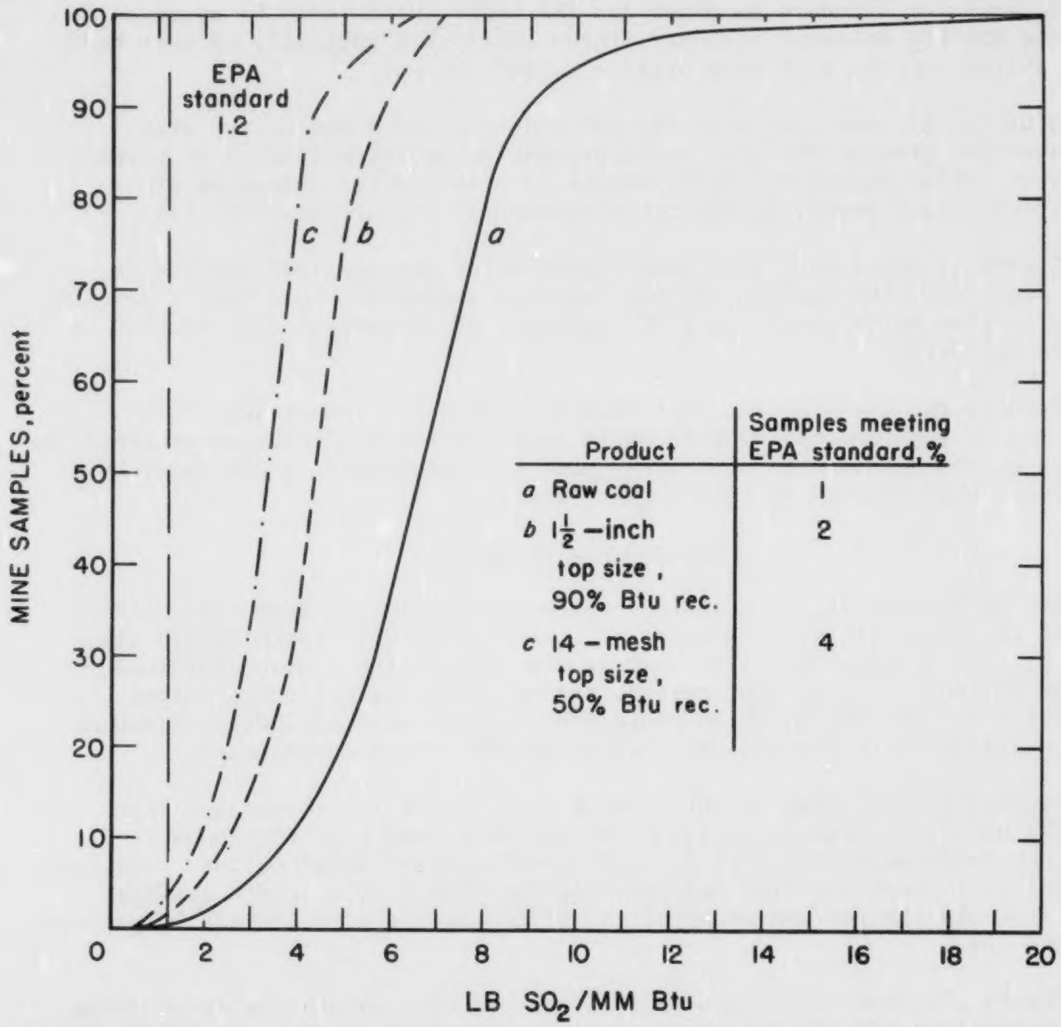


FIGURE 10. - Percent of Eastern Midwest Region coal samples meeting the current EPA standard of 1.2 pounds SO_2/MM Btu with no preparation, curve *a*; compared with those crushed to 1-1/2-inch top size at a Btu recovery of 90 percent, curve *b*; and those crushed to 14-mesh top size at a Btu recovery of 50 percent, curve *c*, and separated gravimetrically.

Western Midwest Region Coals

The 44 Western Midwest Region coalbed samples were collected from five States: Arkansas (3), Kansas (8), Iowa (17), Missouri (9), and Oklahoma (7). The average raw coal of the region contained 16.2 percent ash, 3.58 percent pyritic sulfur, 5.25 percent total sulfur, and 12,072 Btu per pound, which would produce 9.0 pounds SO_2/MM Btu fired at the powerplant.

Aside from two of the coals from Oklahoma, one of which could meet the EPA SO_2 emission standard as mined and the other which could be upgraded to meet the EPA SO_2 emission standard, these coals were generally of very high total sulfur content with high organic sulfur content.

Crushing of these coals to 14-mesh top size and removing the sink 1.60 specific gravity material would provide an ash reduction of 50 percent, a pyritic sulfur reduction of 55 percent, a total sulfur reduction of 33 percent, and a pounds SO_2/MM Btu reduction of 40 percent (fig. 11).

Figure 12 shows that less than 3 percent of the raw coal samples as mined could meet the current EPA SO_2 emission standard. Less than 6 percent of the samples would comply at a Btu recovery of 50 percent when crushed to 14-mesh top size.

Even if the emission standard were raised to 2.0 pounds SO_2/MM Btu, only 5 percent of the raw coal samples would meet the standard with no preparation, whereas approximately 8 percent would meet the standard at a Btu recovery of 50 percent when crushed to 14-mesh top size.

Western Region Coals

The 44 Western Region coalbed samples were collected from seven States: Arizona (6), Colorado (11), Montana (5), New Mexico (9), North Dakota (1), Utah (8), and Wyoming (4). The average raw coal of the region contained 8.9 percent ash, 0.23 percent pyritic sulfur, 0.68 percent total sulfur, and 12,437 Btu per pound, which would produce 1.1 pounds SO_2/MM Btu fired at the powerplant, thus meeting the current EPA SO_2 emission standard.

Figure 13 shows that crushing these coals below 1-1/2-inch top size would be of little benefit in reduction of total sulfur content because these raw coals generally contain less than 1 percent total sulfur. However, crushing to 14-mesh top size and removing the sink 1.60 specific gravity material would provide ash and pyritic sulfur reductions of 33 and 45 percent, respectively.

Figure 14 shows that 70 percent of the raw coal samples as mined would meet the current EPA SO_2 emission standard. Ninety-four percent would comply at a Btu recovery of 90 percent when crushed to 1-1/2-inch top size, and 98 percent would comply at a Btu recovery of 50 percent when crushed to 14-mesh top size.

The coals characteristically are of low sulfur content, often well below 1 percent total sulfur content. These coals range in rank from lignite to bituminous, being predominantly subbituminous coals. However, the inherent moisture content is much higher and the heating value much lower than those of Eastern bituminous coals; therefore, considering also the high transportation costs, extensive use of these coals in Eastern utility plants is doubtful.

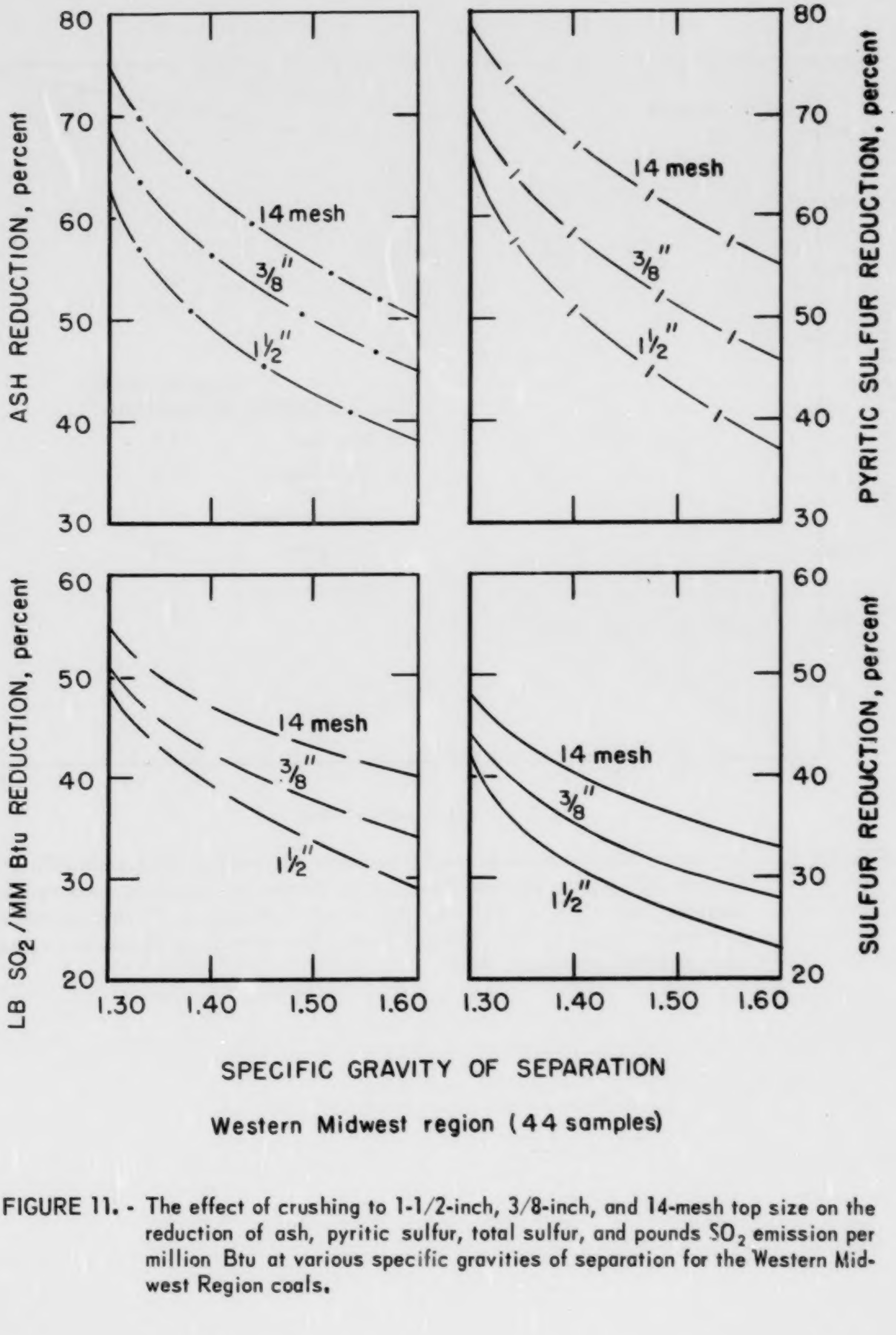


FIGURE 11. - The effect of crushing to 1-1/2-inch, 3/8-inch, and 14-mesh top size on the reduction of ash, pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu at various specific gravities of separation for the Western Midwest Region coals.

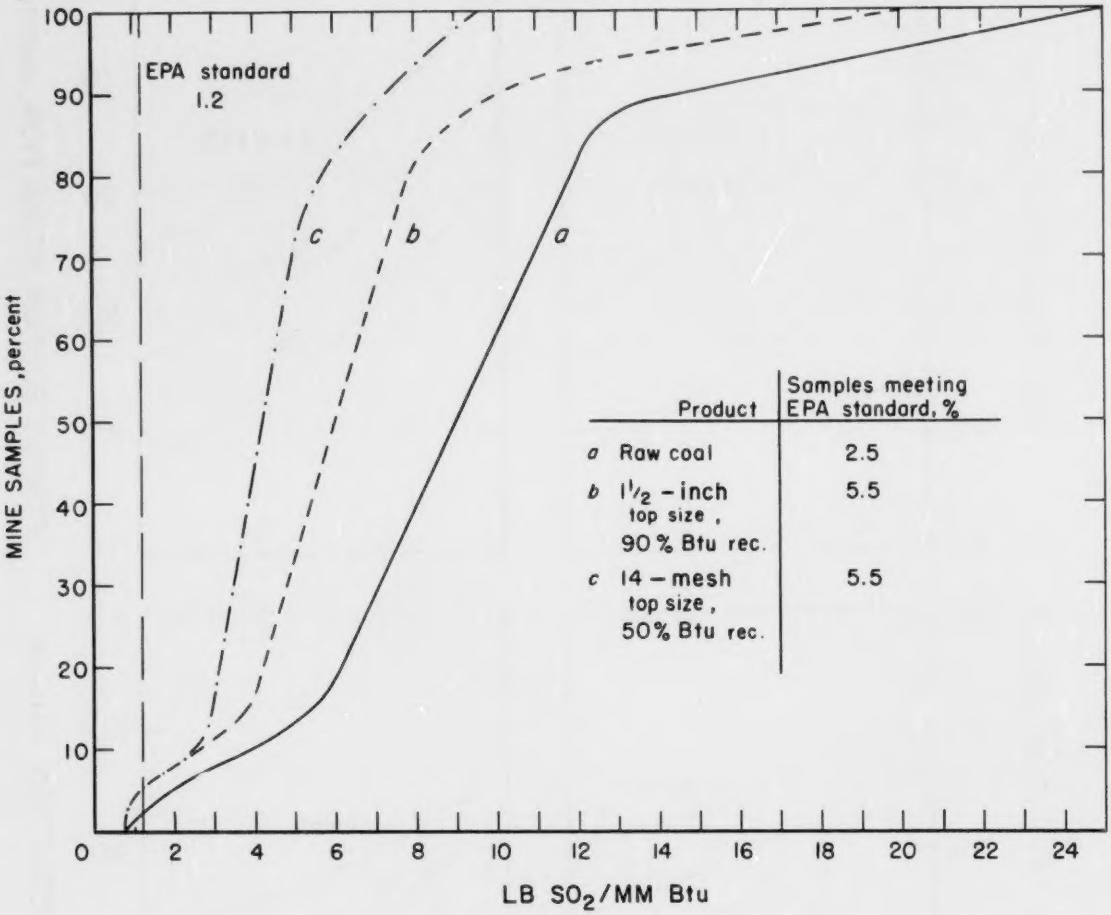
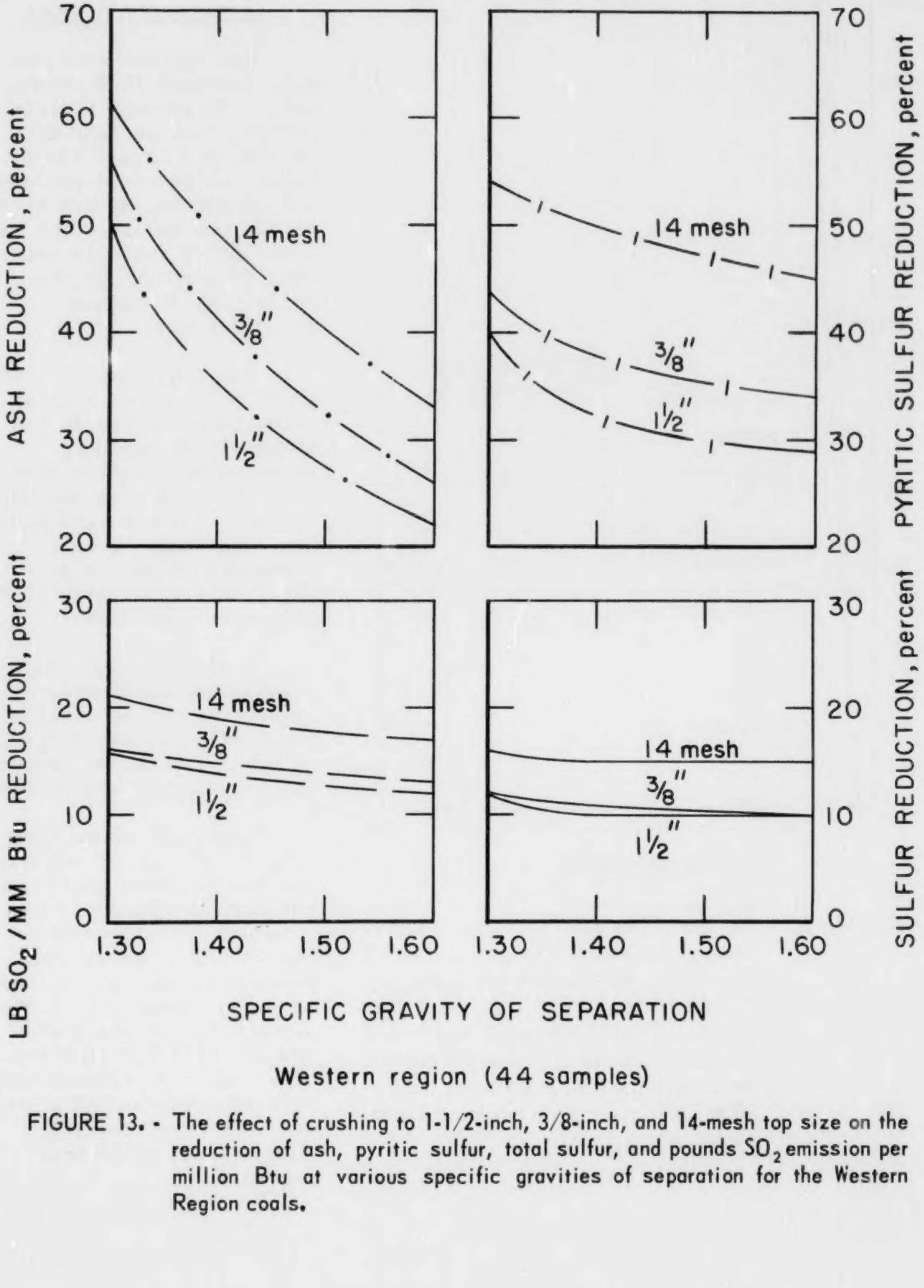
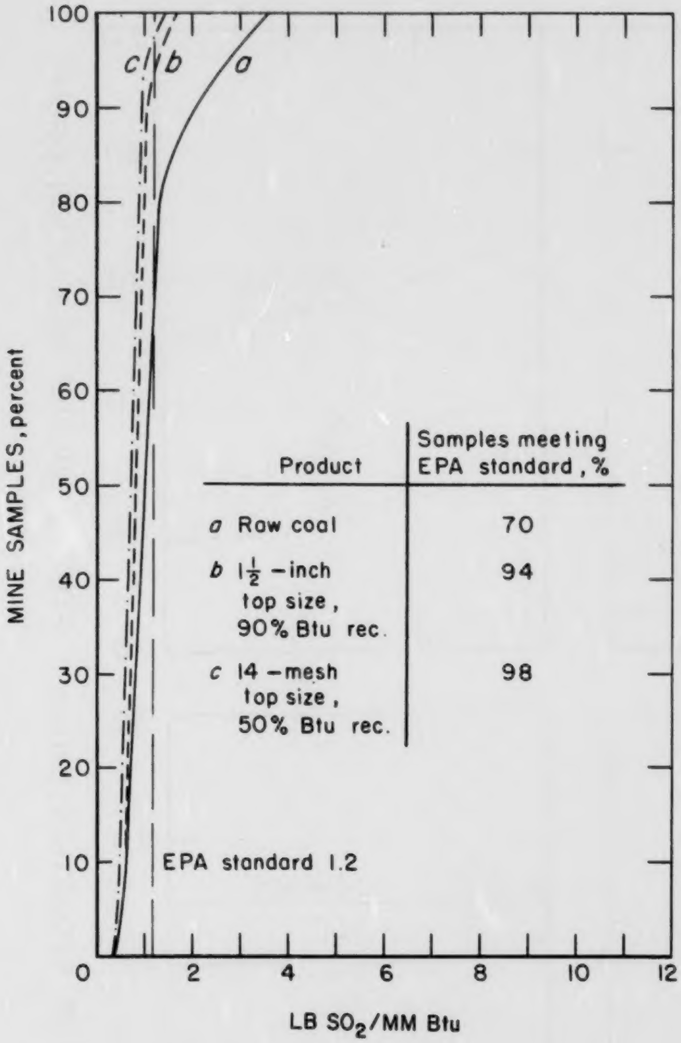


FIGURE 12. - Percent of Western Midwest Region coal samples meeting the current EPA standard of 1.2 pounds SO_2/MM Btu with no preparation, curve *a*; compared with those crushed to 1-1/2-inch top size at a Btu recovery of 90 percent, curve *b*; and those crushed to 14-mesh top size at a Btu recovery of 50 percent, curve *c*, and separated gravimetrically.



Western region (44 samples)

FIGURE 13. - The effect of crushing to 1-1/2-inch, 3/8-inch, and 14-mesh top size on the reduction of ash, pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu at various specific gravities of separation for the Western Region coals.



Product	Samples meeting EPA standard, %
a Raw coal	70
b $1\frac{1}{2}$-inch top size, 90% Btu rec.	94
c 14-mesh top size, 50% Btu rec.	98

FIGURE 14. - Percent of Western Region coal samples meeting the current EPA standard of 1.2 pounds SO_2/MM Btu with no preparation, curve *a*; compared with those crushed to 1-1/2-inch top size at a Btu recovery of 90 percent, curve *b*; and those crushed to 14-mesh top size at a Btu recovery of 50 percent, curve *c*, and separated gravimetrically.

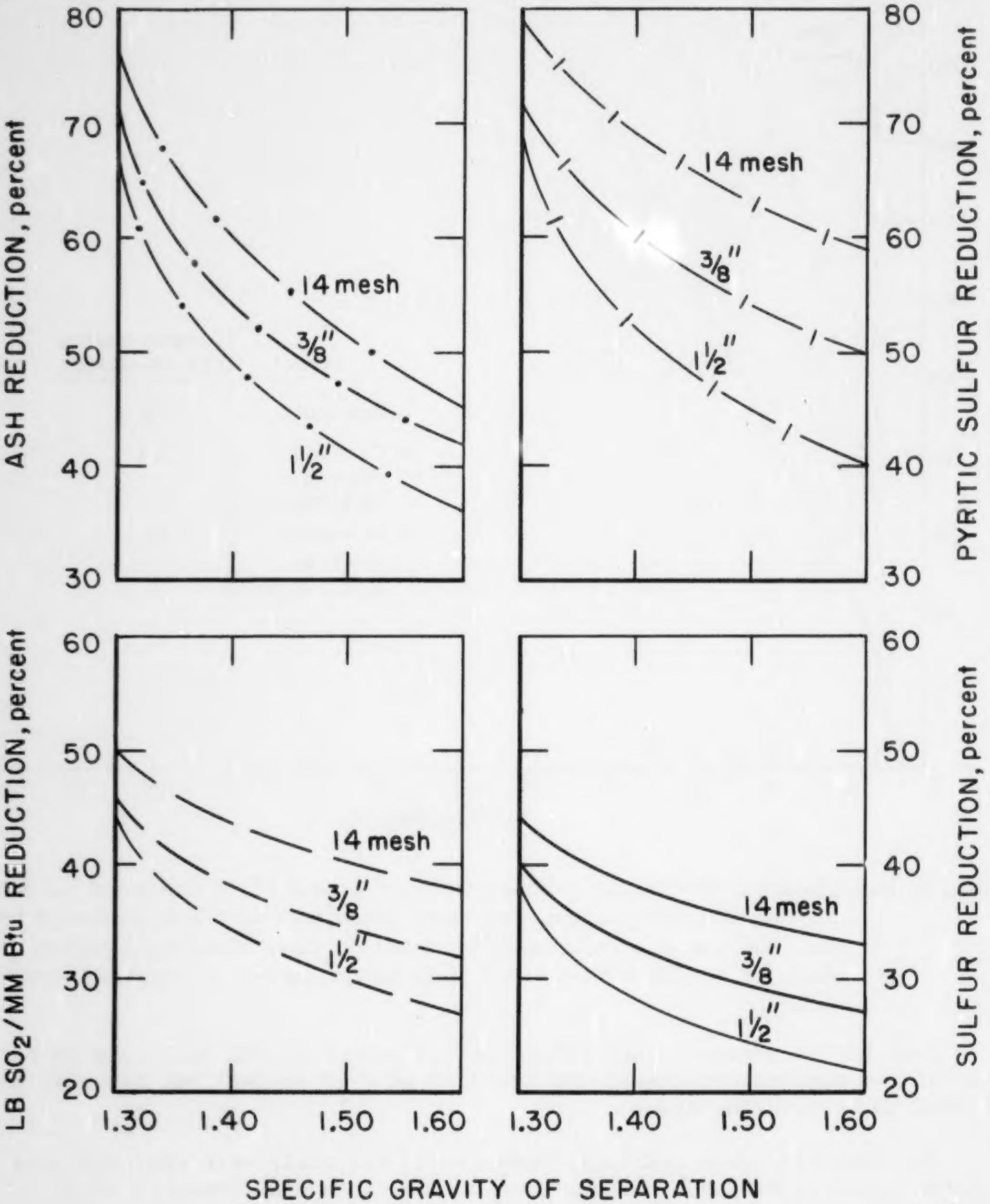
Summary of All Coals

The 455 raw coal samples averaged 14.0 percent ash, 1.91 percent pyritic sulfur, 3.02 percent total sulfur, and 12,574 Btu per pound, which would produce 4.9 pounds SO_2/MM Btu fired at the powerplant. The raw coal sulfur contents averaged 63 percent pyritic sulfur and 37 percent organic sulfur.

The ash, pyritic sulfur, total sulfur, and heating value contents varied considerably as would be expected when washability data of coals from various regions of the United States are evaluated. This is evidenced by the large sigma values for each of the parameters evaluated.

Figure 15 shows that significant reductions of impurities can be obtained, especially ash and pyritic sulfur contents, by crushing and gravimetric separation.

Figure 16 shows that only 14 percent of raw coal samples as mined could meet the current EPA SO_2 emission standard of 1.2 pounds SO_2/MM Btu. Twenty-four percent of the samples would meet the standard at a 90-percent Btu recovery when crushed to 1-1/2-inch top size while 32 percent would meet the standard at a Btu recovery of 50 percent when crushed to 14-mesh top size.



Total U.S. (455 samples)

FIGURE 15. - The effect of crushing to 1-1/2-inch, 3/8-inch, and 14-mesh top size on the reduction of ash, pyritic sulfur, total sulfur, and pounds SO_2 emission per million Btu at various specific gravities of separation for all U.S. coals.

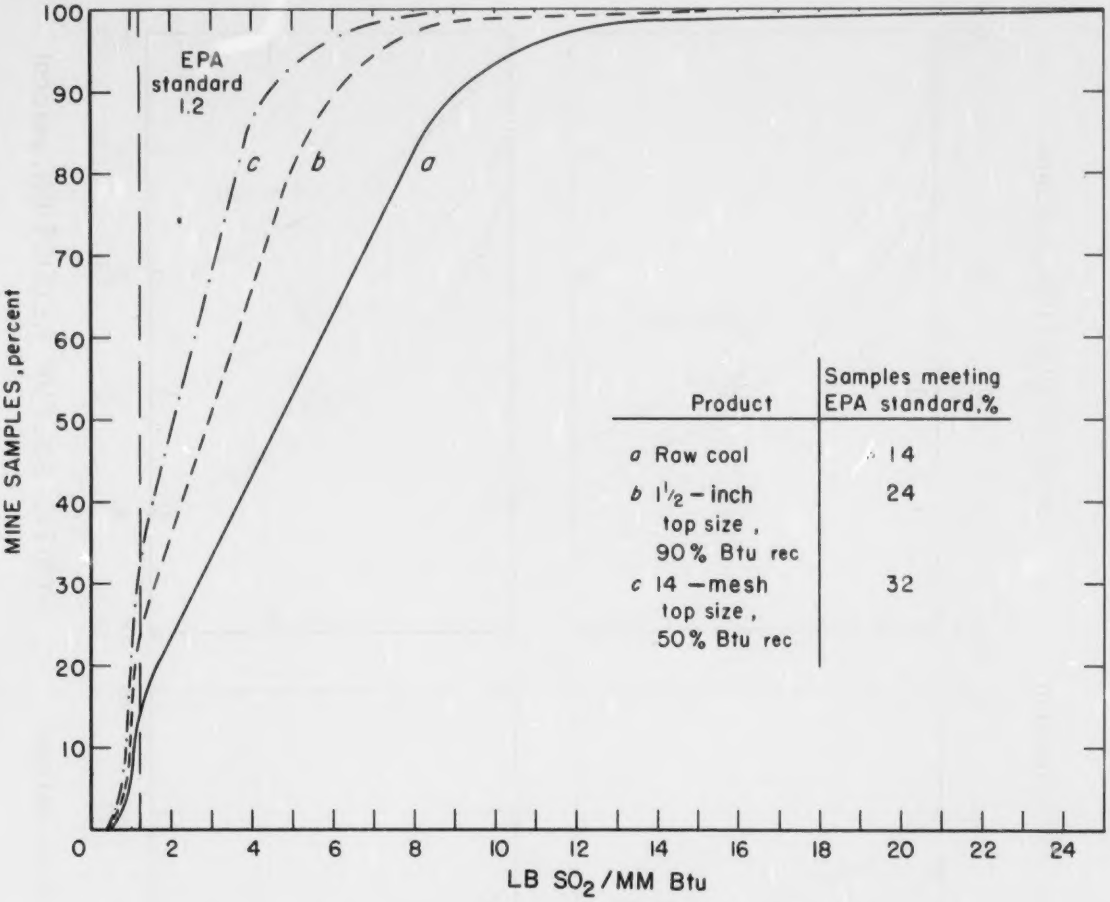


FIGURE 16. - Percent of all U.S. coal samples meeting the current EPA standard of 1.2 pounds SO_2/MM Btu with no preparation, curve *a*; compared with those crushed to 1-1/2-inch top size at a Btu recovery of 90 percent, curve *b*; and those crushed to 14-mesh top size at a Btu recovery of 50 percent, curve *c*, and separated gravimetrically.

Even if the standard were raised to 2.0 pounds SO_2/MM Btu, only 48 percent of the samples could meet the standard at a 50-percent Btu recovery when crushed to 14-mesh top size.

The composite data (table 1) show if all the coals were upgraded at a specific gravity of 1.60, the analyses of the clean coal products of the various regions would range on the average from 5.1 to 8.3 percent ash, 0.10 to 1.80 percent pyritic sulfur, 0.56 to 3.59 percent total sulfur, 12,779 to 14,264 Btu per pound and would produce 0.95 to 5.5 pounds of SO_2/MM at Btu recoveries ranging from 91.7 to 97.6 percent. The corresponding SO_2 removal efficiencies required to comply with the current EPA emission regulations of 1.2 pounds SO_2/MM Btu would range from none to 78 percent.

TABLE 1. - Summary of composite product analyses by region for coals crushed to 3/8-inch top size and cleaned at 1.60 specific gravity showing removal efficiency required to meet Federal SO_2 new source performance standards for steam generators (1.2# SO_2/MM Btu)

Region	Cumulative analyses of float 1.60 product						
	Percent				Pounds	Calorific	SO_2 removal
	Btu recovery	Ash	Pyritic sulfur	Total sulfur	SO_2/MM Btu[1]	content, Btu per pound[2]	efficiency required, percent[3]
Northern Appalachian	92.5	8.0	0.85	1.86	2.7	13,766	56
Southern Appalachian	96.1	5.1	.19	.91	1.3	14,197	8
Alabama............	96.4	5.8	.49	1.16	1.7	14,264	29
Eastern Midwest.....	94.9	7.5	1.03	2.74	4.2	13,138	71
Western Midwest.....	91.7	8.3	1.80	3.59	5.5	13,209	78
Western............	97.6	6.3	.10	.56	.9	12,779	None
Total United States........	93.8	7.5	.85	2.00	3.0	13,530	60

[1] Based upon the moisture-free Btu value for the float coal and assuming all the sulfur is converted to SO_2. Actual emissions will vary depending upon the as-fired coal moisture content and the amount of sulfur that actually goes out the stack as SO_2.

[2] The calorific content (moisture-free basis) was used to calculate the SO_2 removal efficiency required.

[3] Values may require adjustment to account for the as-fired coal moisture content and the amount of sulfur that actually goes out the stack as SO_2.

CONCLUSIONS

1. The 227 Northern Appalachian Region coalbed samples evaluated averaged 2.01 percent pyritic sulfur and 3.01 percent total sulfur. Only 4 percent of the raw coal samples would meet the current EPA SO_2 emission standard whereas, if a 50-percent Btu recovery were acceptable, then 31 percent of the samples would meet the standard when crushed to 14-mesh top size. Coals from the Upper and Lower Freeport and Upper Kittanning coalbeds could be upgraded to meet the current EPA SO_2 emission standard utilizing coal preparation techniques. The coals of this region are especially amenable to pyritic sulfur liberation, averaging 80-percent reduction at a 70-percent Btu recovery when crushed to 14-mesh top size, and separated gravimetrically.

2. The 35 Southern Appalachian Region coalbed samples evaluated contained, on the average, 0.37 percent pyritic sulfur and 1.04 percent total sulfur. Sixty-three percent of the samples would comply with the EPA SO_2 emission standard at a Btu recovery of 50 percent when crushed to 14-mesh top size.

3. The 10 Alabama Region coalbed samples evaluated contained, on the average, 0.69 percent pyritic sulfur and 1.33 percent total sulfur. The pyrite does not readily liberate from these coals; therefore, while 30 percent of the raw coal samples would meet the EPA SO_2 emission standard with no preparation, only 40 percent would meet the standard at a 50-percent Btu recovery when crushed to 14-mesh top size.

4. The 95 Eastern Midwest Region coal samples contained, on the average, 2.29 percent pyritic sulfur and 3.92 percent total sulfur. These coals contained an average of 1.63 percent organic sulfur and, consequently, could not be upgraded to meet the current EPA SO_2 emission standard. Crushing to 14-mesh top size and removing the sink 1.60 specific gravity material would provide a float product with an average ash reduction of 45 percent and an average pyritic sulfur reduction of 57 percent. Only 1 percent of the raw coal samples would meet the current EPA SO_2 emission standard with no preparation; 4 percent would meet the standard at a Btu recovery of 50 percent when crushed to 14-mesh top size. However, none of the principal coalbeds on the average could be upgraded sufficiently to meet the current EPA SO_2 emission standard.

5. The 44 Western coal samples evaluated contained an average of 3.58 percent pyritic sulfur and 5.25 percent total sulfur. These coals contained, on the average, 1.67 percent organic sulfur and thus generally could not be upgraded to meet the EPA SO_2 emission standard. Less than 3 percent of the raw coal samples would meet the standard with no preparation, whereas only 6 percent would comply at a Btu recovery of 50 percent when crushed to 14-mesh top size. These coals contained on the average more than 1 percent higher pyritic and total sulfur content than those of the Eastern Midwest Region.

6. The 44 Western Region coalbed samples evaluated contained an average of 0.68 percent total sulfur which would produce 1.1 pounds SO_2/MM Btu and would thus meet the current EPA SO_2 emission standard as mined. Seventy percent of the raw coal samples would meet the EPA standard with no preparation and 94 percent would comply at a Btu recovery of 90 percent when crushed to 1-1/2-inch top size. These are generally subbituminous coals of high inherent moisture and low Btu content.

7. The 455 U.S. coal samples evaluated contained on the average 1.91 percent pyritic sulfur and 3.02 percent total sulfur. Only 14 percent of the raw coal samples could meet the current EPA SO_2 emission standard of 1.2 pounds SO_2/MM Btu with no preparation. If a 50-percent Btu recovery was acceptable, then 32 percent of the samples could be upgraded to meet the standard when crushed to 14-mesh top size.

APPENDIX A.--WASHABILITY CHARACTERISTICS AND DESULFURIZATION POTENTIAL OF U.S. COALS[1]

State	Coalbed	County	Page
Alabama..............	Clements....................	Walker.............	38
	Gwin........................	Jefferson..........	38
	America.....................	Walker.............	39
	Mary Lee....................	Jefferson..........	39
	Black Creek.................	Blount.............	40
		Cullman............	41
		Jefferson..........	41
		Marion.............	42
Arizona..............	Blue........................	Navajo.............	43
	Red.........................	Navajo.............	44
Arkansas.............	Charleston..................	Franklin...........	46
	Upper Hartshorne............	Johnson............	46
	Lower Hartshorne............	Johnson............	47
Colorado.............	Wadge.......................	Routt..............	47
	C...........................	Gunnison...........	49
	Lennox......................	Routt..............	49
	Laramie No. 3...............	Weld...............	50
	Collom......................	Moffat.............	51
	Uncorrelated................	Fremont............	51
	Uncorrelated................	LaPlata............	52
	Uncorrelated................	Montrose...........	52
Illinois.............	No. 6.......................	Christian..........	53
		Douglas............	53
		Franklin...........	54
		Fulton.............	55
		Jefferson..........	56
		Knox...............	57
		Macoupin...........	58
		Montgomery.........	59
		Peoria.............	60
		Perry..............	60
		Randolph...........	61
		St. Clair..........	62
		Saline.............	63
		Stark..............	64
		Williamson.........	64

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[1] All numbers in the tables are presented on a moisture-free basis unless otherwise noted. The raw coal moisture as presented in the tables is the moisture contained in the sample after being air dried at the coal preparation laboratory. The air dry loss is not included in the moisture determination.

State	Coalbed	County	Page
Illinois (Continued)..	No. 5......................	Franklin...........	67
		Fulton.............	67
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Indiana...............	No. VII....................	Sullivan...........	73
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		Pike...............	78
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		Warrick............	81
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Iowa..................	Lucas County No. 5.........	Wapello............	83
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		Monroe.............	87
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		Mahaska............	88
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Kansas................	Bevier.....................	Crawford...........	91
	Croweburg..................	Crawford...........	92
	Fleming....................	Cherokee...........	93
	Mineral....................	Cherokee...........	93
	Rowe.......................	Crawford...........	94
	Knifeton...................	Crawford...........	94
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	Haddix.....................	Bell...............	96
	Hazard No. 4...............	Bell...............	96
		Floyd..............	97
	Low Splint.................	Harlan.............	97
	Upper Elkhorn No. 3........	McCreary...........	98
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		Muhlenberg	101
	No. 11	Hopkins	103
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Maryland	Waynesburg	Allegany	116
	Sewickley	Allegany	117
		Garrett	118
	Redstone	Allegany	118
	Pittsburgh	Garrett	119
	Little Pittsburgh	Allegany	120
	Franklin	Allegany	120
		Garrett	122
	Barton	Garrett	124
	Harlem	Garrett	125
	Bakerstown	Allegany	125
	Lower Bakerstown	Garrett	126
	Upper Freeport	Allegany	127
		Garrett	127
	Lower Freeport	Garrett	130
	Upper Kittanning	Garrett	131
	Lower Kittanning	Garrett	132
Missouri	Bevier	Boone	133
		Macon	134
		Randolph	134
	Croweburg	Vernon	135
	Fleming	Vernon	135
	Tebo	Henry	136
	Knifeton	Barton	137
	Rowe	Barton	137
Montana	McKay	Rosebud	138
	Rosebud	Rosebud	138

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	No. 8	San Juan	142
	York	Colfax	144
North Dakota	Uncorrelated	Oliver	145
Ohio	Various	Athens	145
	Waynesburg	Belmont	146
	Sewickley	Belmont	146
		Harrison	147
		Morgan	148
		Noble	150
	Pittsburgh	Belmont	151
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		Harrison	156
		Jefferson	157
		Monroe	160
	Mahoning	Guernsey	160
		Jefferson	161
	Lower Freeport	Harrison	161
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		Vinton	169
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		Lawrence	170
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		Vinton	171
		Muskingum	171
		Tuscarawas	172
	Clarion	Meigs	173
	Brookville	Jackson	173
		Mahoning	174
Oklahoma	Fort Scott	Craig	174
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		Rogers	175
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		Rogers	176
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		Armstrong..........	182
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		Indiana............	188
		Somerset...........	190
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		Westmoreland.......	191
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		Cambria............	193
		Clearfield.........	194
		Indiana............	196
	Upper Kittanning..........	Cambria............	197
		Clearfield.........	198
		Somerset...........	199
		Tioga..............	200
	Middle Kittanning.........	Clarion............	201
		Clearfield.........	201
		Tioga..............	204
	Lower Kittanning..........	Armstrong..........	206
		Bedford............	208
		Cambria............	208
		Centre.............	210
		Clarion............	211
		Clearfield.........	212
		Clinton............	214
		Indiana............	215
		Jefferson..........	220
		Lawrence...........	221
		Somerset...........	221
		Tioga..............	222
	Clarion...................	Centre.............	222
		Clarion............	223
	Brookville................	Butler.............	225
		Centre.............	225
		Lawrence...........	226
		Mercer.............	227
	Uncorrelated..............	Tioga..............	227
	Lower Kittanning and Lower Freeport................	Cambria............	229

State	Coalbed	County	Page
Tennessee	Walnut Mountain	Campbell	229
	Big Mary	Anderson	230
	Poplar Lick	Scott	230
	Jordan	Campbell	231
	Jellico	Campbell	231
		Claiborne	232
	Sewanee	Marion	233
Utah	Uncorrelated	Carbon	233
	Castle Gate A	Carbon	234
	Subseam No. 3	Carbon	235
	Hiawatha	Carbon	235
	Ferron J	Emery	236
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Virginia	Taggart	Wise	237
	Kelly	Wise	238
	Imboden	Wise	238
	Dorchester	Wise	239
	Spash Dam	Dickenson	239
	Upper Banner	Dickenson	240
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	Tiller	Russell	241
West Virginia	Waynesburg	Monongalia	241
	Sewickley	Monongalia	242
	Pittsburgh	Brooke	242
		Harrison	243
		Marion	244
		Marshall	246
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	Bakerstown	Grant	250
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		Preston	251
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	Lower Kittanning	Boone	255
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	Stockton-Lewistown	Logan	257
	Winifrede	Boone	258
		Kanawha	258
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State	Coalbed	County	Page
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APPENDIX A.--WASHABILITY CHARACTERISTICS AND DESULFURIZATION POTENTIAL OF U.S. COALS

STATE: ALABAMA
COUNTY: WALKER

COALBED: CLEMENTS
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.1	32.7	14618	2.8	.26	1.12	1.5
FLOAT-1.40	70.5	76.3	14078	6.4	1.70	2.66	3.8
FLOAT-1.60	90.5	95.4	13718	8.8	2.45	3.40	5.0
TOTAL	100.0	100.0	13014	13.5	2.84	3.75	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.0	39.4	14618	2.8	.31	1.20	1.6
FLOAT-1.40	72.5	79.1	14168	5.8	1.55	2.55	3.6
FLOAT-1.60	88.9	94.6	13823	8.1	2.24	3.23	4.7
TOTAL	100.0	100.0	12984	13.7	2.82	3.76	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.7	48.4	14603	2.9	.35	1.33	1.8
FLOAT-1.40	71.5	79.2	14273	5.1	1.07	2.06	2.9
FLOAT-1.60	87.5	93.8	13808	8.2	1.75	2.77	4.0
TOTAL	100.0	100.0	12879	14.4	2.81	3.78	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ALABAMA
COUNTY: JEFFERSON

COALBED: GWIN
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.4	14.1	14752	4.6	.41	1.24	1.7
FLOAT-1.40	62.1	66.9	13945	9.8	.73	1.50	2.2
FLOAT-1.60	91.6	94.0	13278	14.1	.80	1.47	2.2
TOTAL	100.0	100.0	12936	16.3	1.12	1.77	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.9	18.0	14721	4.8	.42	1.26	1.7
FLOAT-1.40	64.0	68.9	13992	9.5	.71	1.49	2.1
FLOAT-1.60	91.3	93.9	13371	13.5	.76	1.47	2.2
TOTAL	100.0	100.0	12998	15.9	1.12	1.78	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.4	22.3	14845	4.0	.34	1.22	1.6
FLOAT-1.40	57.2	62.8	14178	8.3	.52	1.32	1.9
FLOAT-1.60	88.9	92.6	13464	12.9	.62	1.32	2.0
TOTAL	100.0	100.0	12921	16.4	1.24	1.93	3.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ALABAMA
COUNTY: WALKER

COALBED: AMERICA
RAW COAL MOISTURE: 1.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.6	53.7	14475	2.8	.19	1.07	1.5
FLOAT-1.40	69.6	77.3	14237	4.4	.44	1.34	1.9
FLOAT-1.60	83.7	90.3	13836	7.1	.63	1.52	2.2
TOTAL	100.0	100.0	12824	13.9	.93	1.71	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.2	54.7	14520	2.5	.12	1.04	1.4
FLOAT-1.40	71.9	79.9	14222	4.5	.41	1.33	1.9
FLOAT-1.60	83.8	90.8	13865	6.9	.52	1.41	2.0
TOTAL	100.0	100.0	12795	14.1	.94	1.73	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.9	49.2	14535	2.4	.10	.94	1.3
FLOAT-1.40	70.9	79.6	14222	4.5	.29	1.08	1.5
FLOAT-1.60	81.8	89.8	13910	6.6	.39	1.16	1.7
TOTAL	100.0	100.0	12676	14.9	.97	1.68	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ALABAMA
COUNTY: JEFFERSON

COALBED: MARY LEE
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.7	29.6	14731	3.9	.04	.75	1.0
FLOAT-1.40	76.9	85.1	14137	7.8	.07	.71	1.0
FLOAT-1.60	88.1	95.5	13863	9.6	.08	.67	1.0
TOTAL	100.0	100.0	12783	16.7	.11	.67	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.6	39.8	14746	3.8	.06	.70	.9
FLOAT-1.40	76.6	85.1	14244	7.1	.11	.65	.9
FLOAT-1.60	87.8	95.5	13955	9.0	.12	.63	.9
TOTAL	100.0	100.0	12828	16.4	.15	.62	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.7	43.2	14838	3.2	.02	.74	1.0
FLOAT-1.40	74.2	82.3	14366	6.3	.05	.71	1.0
FLOAT-1.60	87.3	94.6	14031	8.5	.07	.68	1.0
TOTAL	100.0	100.0	12950	15.6	.13	.69	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: ALABAMA
COUNTY: JEFFERSON

COALBED: MARY LEE
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.7	23.6	14557	4.9	.16	.81	1.1
FLOAT-1.40	77.9	84.8	13929	9.0	.34	.99	1.4
FLOAT-1.60	87.8	94.1	13714	10.4	.46	1.09	1.6
TOTAL	100.0	100.0	12795	16.4	.53	1.11	1.7
EPA STANDARD	42.0	46.6	14379	6.3	.21	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.0	32.0	14649	4.3	.16	.84	1.1
FLOAT-1.40	75.8	83.2	14066	8.1	.32	.99	1.4
FLOAT-1.60	88.0	94.6	13775	10.0	.45	1.09	1.6
TOTAL	100.0	100.0	12810	16.3	.54	1.12	1.7
EPA STANDARD	40.6	45.8	14530	5.2	.19	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.5	41.0	14832	3.1	.12	.83	1.1
FLOAT-1.40	71.6	79.3	14220	7.1	.25	.97	1.4
FLOAT-1.60	87.3	94.0	13821	9.7	.37	1.05	1.5
TOTAL	100.0	100.0	12841	16.1	.54	1.15	1.8
EPA STANDARD	48.9	55.7	14630	4.4	.15	.88	1.20

STATE: ALABAMA
COUNTY: BLOUNT

COALBED: BLACK CREEK
RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	83.0	87.5	15256	2.0	.06	.71	.9
FLOAT-1.40	90.3	94.8	15193	2.4	.07	.71	.9
FLOAT-1.60	93.7	97.9	15131	2.8	.10	.73	1.0
FLOAT-1.90	94.8	98.7	15069	3.2	.15	.78	1.0
TOTAL	100.0	100.0	14477	7.0	.32	.93	1.3
EPA STANDARD	98.0	99.8	14678	5.3	.26	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	82.6	87.4	15349	1.4	.04	.71	.9
FLOAT-1.40	89.3	94.1	15287	1.8	.05	.71	.9
FLOAT-1.60	93.5	98.0	15209	2.3	.06	.71	.9
FLOAT-1.90	94.6	98.8	15147	2.7	.07	.72	1.0
TOTAL	100.0	100.0	14508	6.8	.28	.90	1.2
EPA STANDARD	99.2	99.8	14598	6.5	.25	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.7	80.8	15380	1.2	.04	.70	.9
FLOAT-1.40	87.3	92.6	15287	1.8	.06	.70	.9
FLOAT-1.60	92.6	97.6	15193	2.4	.07	.70	.9
FLOAT-1.90	94.0	98.6	15116	2.9	.08	.70	.9
TOTAL	100.0	100.0	14415	7.4	.31	.92	1.3
EPA STANDARD	98.7	99.7	14568	6.4	.35	.83	1.20

STATE: ALABAMA
COUNTY: CULLMAN

COALBED: BLACK CREEK
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	95.6	96.0	14850	1.4	.04	.61	.8
FLOAT-1.40	98.9	99.2	14835	1.5	.05	.61	.8
FLOAT-1.60	99.6	99.7	14803	1.7	.05	.62	.8
TOTAL	100.0	100.0	14788	1.8	.06	.62	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	92.9	93.4	14881	1.2	.04	.63	.8
FLOAT-1.40	98.4	98.7	14850	1.4	.04	.63	.8
FLOAT-1.60	99.5	99.7	14835	1.5	.05	.63	.8
TOTAL	100.0	100.0	14803	1.7	.06	.64	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	86.5	87.3	14943	.8	.05	.60	.8
FLOAT-1.40	97.1	97.6	14881	1.2	.05	.60	.8
FLOAT-1.60	99.0	99.4	14866	1.3	.06	.61	.8
TOTAL	100.0	100.0	14803	1.7	.08	.62	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: ALABAMA
COUNTY: JEFFERSON

COALBED: BLACK CREEK
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	89.0	90.4	15291	1.1	.07	.58	.8
FLOAT-1.40	95.0	96.4	15276	1.2	.07	.57	.7
FLOAT-1.60	97.5	98.7	15230	1.5	.07	.57	.7
TOTAL	100.0	100.0	15046	2.7	.09	.58	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	88.1	89.6	15291	1.1	.05	.61	.8
FLOAT-1.40	93.9	95.4	15276	1.2	.05	.60	.8
FLOAT-1.60	97.3	98.6	15230	1.5	.06	.60	.8
TOTAL	100.0	100.0	15031	2.8	.08	.61	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	87.0	88.2	15306	1.0	.07	.56	.7
FLOAT-1.40	92.6	93.8	15291	1.1	.07	.56	.7
FLOAT-1.60	97.0	97.9	15230	1.5	.08	.55	.7
TOTAL	100.0	100.0	15092	2.4	.10	.58	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: ALABAMA
COUNTY: MARION

COALBED: BLACK CREEK
RAW COAL MOISTURE: 2.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	88.9	90.1	14449	1.6	.16	.81	1.1
FLOAT-1.40	97.5	98.4	14391	2.0	.21	.86	1.2
FLOAT-1.60	98.8	99.6	14376	2.1	.23	.88	1.2
TOTAL	100.0	100.0	14259	2.9	.27	.90	1.3
EPA STANDARD	97.8	98.7	14388	2.0	.21	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	88.3	89.7	14435	1.7	.15	.80	1.1
FLOAT-1.40	96.4	97.7	14405	1.9	.19	.83	1.2
FLOAT-1.60	98.4	99.5	14376	2.1	.20	.85	1.2
TOTAL	100.0	100.0	14215	3.2	.28	.91	1.3
EPA STANDARD	99.2	99.6	14347	2.2	.21	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	87.0	88.4	14435	1.7	.13	.79	1.1
FLOAT-1.40	94.9	96.3	14405	1.9	.16	.81	1.1
FLOAT-1.60	98.0	99.2	14376	2.1	.18	.82	1.1
TOTAL	100.0	100.0	14201	3.3	.31	.93	1.3
EPA STANDARD	98.7	99.5	14315	2.7	.24	.86	1.20

STATE: ALABAMA
COUNTY: MARION

COALBED: BLACK CREEK
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	83.2	84.5	14286	2.1	.31	1.01	1.4
FLOAT-1.40	96.1	97.1	14213	2.6	.39	1.08	1.5
FLOAT-1.60	98.3	99.1	14183	2.8	.43	1.11	1.6
TOTAL	100.0	100.0	14066	3.6	.55	1.22	1.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	86.3	87.6	14286	2.1	.34	.91	1.3
FLOAT-1.40	95.6	96.7	14242	2.4	.40	.97	1.4
FLOAT-1.60	98.2	99.0	14198	2.7	.42	1.00	1.4
TOTAL	100.0	100.0	14080	3.5	.57	1.14	1.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.2	73.6	14331	1.8	.23	.83	1.2
FLOAT-1.40	92.9	94.4	14272	2.2	.32	.94	1.3
FLOAT-1.60	97.4	98.7	14242	2.4	.34	.96	1.3
TOTAL	100.0	100.0	14051	3.7	.58	1.20	1.7
EPA STANDARD	77.2	78.8	14315	1.8	.25	.86	1.20

STATE: ARIZONA
COUNTY: NAVAJO

COALBED: BLUE
RAW COAL MOISTURE: 10.2 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.2	72.9	13158	3.0	.14	.65	1.0
FLOAT-1.40	96.5	97.9	13037	3.8	.15	.66	1.0
FLOAT-1.60	98.6	99.6	12992	4.1	.15	.66	1.0
TOTAL	100.0	100.0	12856	5.0	.16	.67	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.5	73.3	13189	2.8	.12	.64	1.0
FLOAT-1.40	95.5	97.1	13083	3.5	.14	.64	1.0
FLOAT-1.60	98.5	99.5	13007	4.0	.15	.65	1.0
TOTAL	100.0	100.0	12871	4.9	.16	.66	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: ARIZONA
COUNTY: NAVAJO

COALBED: BLUE
RAW COAL MOISTURE: 10.6 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.0	71.0	12969	3.8	.12	.57	.9
FLOAT-1.40	88.0	92.3	12834	4.8	.13	.57	.9
FLOAT-1.60	93.1	96.5	12685	5.9	.14	.58	.9
TOTAL	100.0	100.0	12238	9.2	.19	.62	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.5	64.4	13064	3.1	.15	.55	.8
FLOAT-1.40	85.3	90.0	12956	3.9	.15	.56	.9
FLOAT-1.60	92.1	96.0	12793	5.1	.17	.57	.9
TOTAL	100.0	100.0	12279	8.9	.22	.62	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: ARIZONA
COUNTY: NAVAJO
COALBED: RED
BENCH: TOP
RAW COAL MOISTURE: 8.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.0	39.4	12973	3.8	.07	.40	.6
FLOAT-1.40	82.2	85.6	12693	5.8	.06	.42	.7
FLOAT-1.60	96.0	97.9	12426	7.7	.06	.41	.7
TOTAL	100.0	100.0	12187	9.4	.06	.40	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.2	42.0	13043	3.3	.10	.39	.6
FLOAT-1.40	81.8	85.8	12791	5.1	.09	.41	.6
FLOAT-1.60	93.7	96.2	12510	7.1	.09	.39	.6
TOTAL	100.0	100.0	12187	9.4	.09	.38	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: ARIZONA
COUNTY: NAVAJO
COALBED: RED
BENCH: MIDDLE
RAW COAL MOISTURE: 9.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.5	48.6	12979	3.2	.06	.35	.5
FLOAT-1.40	88.4	90.4	12694	5.2	.09	.35	.6
FLOAT-1.60	97.5	98.3	12509	6.5	.08	.35	.6
TOTAL	100.0	100.0	12410	7.2	.09	.35	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.9	46.0	13036	2.8	.05	.37	.6
FLOAT-1.40	86.7	89.1	12794	4.5	.05	.37	.6
FLOAT-1.60	96.0	97.2	12609	5.8	.05	.37	.6
TOTAL	100.0	100.0	12453	6.9	.05	.36	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: ARIZONA
COUNTY: NAVAJO
COALBED: RED
RAW COAL MOISTURE: 9.4 %
BENCH: BOTTOM

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.0	25.1	12860	4.6	.07	.43	.7
FLOAT-1.40	88.5	89.8	12467	7.4	.05	.44	.7
FLOAT-1.60	98.3	98.7	12341	8.3	.06	.43	.7
TOTAL	100.0	100.0	12285	8.7	.06	.42	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.3	20.3	12930	4.1	.18	.42	.6
FLOAT-1.40	86.3	88.3	12593	6.5	.14	.45	.7
FLOAT-1.60	97.1	98.0	12425	7.7	.14	.44	.7
TOTAL	100.0	100.0	12313	8.5	.14	.43	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: ARIZONA
COUNTY: NAVAJO
COALBED: RED
RAW COAL MOISTURE: 11.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.3	60.7	13123	3.6	.10	.45	.7
FLOAT-1.40	90.4	93.9	12868	5.4	.10	.46	.7
FLOAT-1.60	95.7	98.3	12726	6.4	.11	.46	.7
TOTAL	100.0	100.0	12387	8.8	.12	.47	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.7	56.9	13207	3.0	.08	.48	.7
FLOAT-1.40	89.3	92.8	12953	4.8	.09	.48	.7
FLOAT-1.60	95.8	98.3	12783	6.0	.09	.48	.8
TOTAL	100.0	100.0	12458	8.3	.10	.49	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: ARKANSAS
COUNTY: FRANKLIN

COALBED: CHARLESTON
RAW COAL MOISTURE: .4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.5	8.0	15081	2.9	1.11	1.84	2.4
FLOAT-1.40	89.2	92.4	14692	5.4	2.31	3.11	4.2
FLOAT-1.60	94.9	97.8	14615	5.9	2.47	3.32	4.5
FLOAT-1.90	96.2	98.8	14568	6.2	2.56	3.42	4.7
TOTAL	100.0	100.0	14180	8.7	2.78	3.63	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.1	19.2	15096	2.8	1.06	1.83	2.4
FLOAT-1.40	87.4	90.8	14770	4.9	2.12	2.92	4.0
FLOAT-1.60	94.3	97.4	14677	5.5	2.33	3.18	4.3
FLOAT-1.90	95.8	98.5	14615	5.9	2.43	3.29	4.5
TOTAL	100.0	100.0	14211	8.5	2.73	3.58	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.7	22.2	15143	2.5	.80	1.57	2.1
FLOAT-1.40	83.2	87.3	14832	4.5	1.87	2.67	3.6
FLOAT-1.60	92.7	96.6	14723	5.2	2.17	3.04	4.1
FLOAT-1.90	94.4	97.8	14646	5.7	2.29	3.16	4.3
TOTAL	100.0	100.0	14133	9.0	2.74	3.61	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ARKANSAS
COUNTY: JOHNSON

COALBED: UPPER HARTSHORNE
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.6	.6	15109	1.8	.30	.76	1.0
FLOAT-1.40	88.9	91.9	14801	3.8	.35	.86	1.2
FLOAT-1.60	94.0	96.5	14709	4.4	.51	1.03	1.4
FLOAT-1.90	96.3	98.3	14616	5.0	.60	1.13	1.5
TOTAL	100.0	100.0	14324	6.9	1.19	1.76	2.5
EPA STANDARD	89.7	92.6	14786	4.1	.37	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.1	3.3	15001	2.5	.20	.74	1.0
FLOAT-1.40	88.4	91.7	14832	3.6	.22	.82	1.1
FLOAT-1.60	93.7	96.7	14755	4.1	.32	.92	1.2
FLOAT-1.90	95.6	98.1	14663	4.7	.40	1.01	1.4
TOTAL	100.0	100.0	14293	7.1	1.20	1.84	2.6
EPA STANDARD	91.9	95.1	14781	4.0	.28	.89	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.0	3.1	14909	3.1	.04	.69	.9
FLOAT-1.40	86.8	90.5	14878	3.3	.13	.79	1.1
FLOAT-1.60	93.2	96.7	14801	3.8	.17	.84	1.1
FLOAT-1.90	94.9	98.0	14724	4.3	.23	.90	1.2
TOTAL	100.0	100.0	14262	7.3	1.13	1.82	2.6
EPA STANDARD	94.5	97.7	14744	4.2	.21	.88	1.20

STATE: ARKANSAS
COUNTY: JOHNSON

COALBED: LOWER HARTSHORNE
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.1	.1	14536	4.8	1.07	1.77	2.4
FLOAT-1.40	56.5	58.8	14444	5.4	1.42	2.20	3.0
FLOAT-1.60	94.7	96.4	14124	7.5	2.46	3.35	4.7
FLOAT-1.90	98.0	99.1	14032	8.1	2.72	3.71	5.3
TOTAL	100.0	100.0	13879	9.1	2.92	3.97	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.6	.6	14750	3.4	.61	1.30	1.8
FLOAT-1.40	68.2	70.9	14475	5.2	1.32	2.08	2.9
FLOAT-1.60	93.6	95.9	14261	6.6	2.03	2.87	4.0
FLOAT-1.90	96.6	98.3	14169	7.2	2.27	3.21	4.5
TOTAL	100.0	100.0	13925	8.8	2.80	3.87	5.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.8	.9	14796	3.1	.61	1.26	1.7
FLOAT-1.40	69.1	72.3	14536	4.8	1.00	1.59	2.2
FLOAT-1.60	92.5	95.3	14322	6.2	1.62	2.35	3.3
FLOAT-1.90	94.9	97.3	14246	6.7	1.82	2.64	3.7
TOTAL	100.0	100.0	13895	9.0	2.89	4.03	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: COLORADO
COUNTY: ROUTT

COALBED: WADGE
RAW COAL MOISTURE: 5.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.6	26.4	12835	3.0	.03	.43	.7
FLOAT-1.40	83.9	88.0	12544	5.2	.04	.44	.7
FLOAT-1.60	97.2	98.6	12134	8.3	.04	.44	.7
FLOAT-1.90	99.4	99.8	12015	9.2	.04	.44	.7
TOTAL	100.0	100.0	11962	9.6	.04	.44	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.9	25.7	12848	2.9	.02	.43	.7
FLOAT-1.40	83.9	88.2	12570	5.0	.03	.44	.7
FLOAT-1.60	96.0	97.9	12200	7.8	.03	.44	.7
FLOAT-1.90	99.3	99.8	12028	9.1	.03	.44	.7
TOTAL	100.0	100.0	11962	9.6	.04	.44	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.2	5.6	12782	3.4	.03	.43	.7
FLOAT-1.40	82.3	86.7	12584	4.9	.04	.45	.7
FLOAT-1.60	94.3	96.8	12266	7.3	.04	.45	.7
FLOAT-1.90	98.9	99.7	12041	9.0	.04	.45	.7
TOTAL	100.0	100.0	11948	9.7	.05	.45	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: ROUTT

COALBED: WADGE
RAW COAL MOISTURE: 4.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.8	.9	13274	3.2	.06	.54	.8
FLOAT-1.40	89.8	91.9	12684	7.5	.06	.53	.8
FLOAT-1.60	99.2	99.6	12451	9.2	.06	.53	.9
FLOAT-1.90	99.4	99.8	12451	9.2	.06	.53	.9
TOTAL	100.0	100.0	12396	9.6	.08	.54	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	2.4	2.6	13302	3.0	.05	.54	.8
FLOAT-1.40	88.6	91.1	12767	6.9	.05	.51	.8
FLOAT-1.60	98.5	99.4	12520	8.7	.05	.50	.8
FLOAT-1.90	99.2	99.7	12479	9.0	.05	.50	.8
TOTAL	100.0	100.0	12410	9.5	.09	.54	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.6	6.0	13302	3.0	.04	.55	.8
FLOAT-1.40	87.0	89.9	12808	6.6	.04	.48	.7
FLOAT-1.60	97.4	98.8	12575	8.3	.04	.48	.8
FLOAT-1.90	99.0	99.8	12492	8.9	.04	.48	.8
TOTAL	100.0	100.0	12396	9.6	.10	.53	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: ROUTT

COALBED: WADGE
RAW COAL MOISTURE: 6.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.9	12.9	13159	2.7	.05	.57	.9
FLOAT-1.40	87.0	91.2	12712	5.8	.13	.66	1.0
FLOAT-1.60	94.5	97.2	12467	7.5	.12	.66	1.1
TOTAL	100.0	100.0	12121	9.9	.14	.66	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.6	15.0	13217	2.3	.08	.60	.9
FLOAT-1.40	82.0	87.4	12741	5.6	.07	.67	1.1
FLOAT-1.60	93.0	96.5	12395	8.0	.09	.66	1.1
TOTAL	100.0	100.0	11948	11.1	.12	.69	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.8	12.8	13073	3.3	.05	.57	.9
FLOAT-1.40	82.1	86.7	12756	5.5	.05	.62	1.0
FLOAT-1.60	92.9	96.7	12568	6.8	.06	.62	1.0
TOTAL	100.0	100.0	12078	10.2	.11	.66	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: GUNNISON
COALBED: C
RAW COAL MOISTURE: 4.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	75.2	78.4	13956	2.6	.07	.43	.6
FLOAT-1.40	89.0	91.8	13808	3.6	.07	.43	.6
FLOAT-1.60	98.5	99.4	13498	5.7	.07	.43	.6
TOTAL	100.0	100.0	13380	6.5	.07	.42	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	72.9	76.4	13985	2.4	.05	.42	.6
FLOAT-1.40	87.5	90.6	13823	3.5	.05	.42	.6
FLOAT-1.60	97.6	98.8	13513	5.6	.05	.42	.6
TOTAL	100.0	100.0	13350	6.7	.06	.41	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	72.0	75.7	14044	2.0	.09	.43	.6
FLOAT-1.40	88.5	91.9	13882	3.1	.09	.43	.6
FLOAT-1.60	96.4	98.3	13631	4.8	.09	.42	.6
TOTAL	100.0	100.0	13365	6.6	.10	.42	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: ROUTT
COALBED: LENNOX
RAW COAL MOISTURE: 7.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	29.4	31.7	13111	4.1	.06	.54	.8
FLOAT-1.40	83.7	88.6	12863	5.9	.08	.60	.9
FLOAT-1.60	93.4	96.5	12546	8.2	.08	.60	1.0
TOTAL	100.0	100.0	12146	11.1	.10	.62	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	33.1	35.8	13180	3.6	.09	.55	.8
FLOAT-1.40	83.8	88.8	12918	5.5	.10	.59	.9
FLOAT-1.60	92.6	96.1	12643	7.5	.10	.60	.9
TOTAL	100.0	100.0	12188	10.8	.12	.60	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	18.3	19.8	13263	3.0	.10	.66	1.0
FLOAT-1.40	80.6	85.8	13042	4.6	.07	.64	1.0
FLOAT-1.60	91.9	95.8	12780	6.5	.07	.63	1.0
TOTAL	100.0	100.0	12257	10.3	.09	.65	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: WELD

COALBED: LARAMIE NO. 3
RAW COAL MOISTURE: 15.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.1	72.9	12446	4.0	.04	.36	.6
FLOAT-1.40	98.2	98.7	12379	4.4	.05	.38	.6
FLOAT-1.60	99.5	99.9	12363	4.5	.05	.38	.6
TOTAL	100.0	100.0	12313	4.8	.07	.40	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.2	68.0	12496	3.7	.06	.36	.6
FLOAT-1.40	94.2	95.0	12446	4.0	.06	.35	.6
FLOAT-1.60	99.4	99.8	12396	4.3	.06	.36	.6
TOTAL	100.0	100.0	12346	4.6	.08	.37	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.1	10.3	12496	3.7	.05	.39	.6
FLOAT-1.40	91.0	92.5	12446	4.0	.05	.39	.6
FLOAT-1.60	98.7	99.6	12363	4.5	.05	.39	.6
TOTAL	100.0	100.0	12246	5.2	.08	.42	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: WELD

COALBED: LARAMIE NO. 3
RAW COAL MOISTURE: 6.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.9	77.7	12724	4.3	.03	.30	.5
FLOAT-1.40	95.9	97.8	12684	4.6	.03	.30	.5
FLOAT-1.60	97.5	99.3	12658	4.8	.03	.30	.5
FLOAT-1.90	98.5	99.7	12578	5.4	.04	.30	.5
TOTAL	100.0	100.0	12432	6.5	.05	.31	.5

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.5	29.1	12751	4.1	.01	.30	.5
FLOAT-1.40	94.2	96.3	12751	4.1	.02	.30	.5
FLOAT-1.60	97.3	99.1	12698	4.5	.02	.30	.5
FLOAT-1.90	98.3	99.7	12645	4.9	.02	.30	.5
TOTAL	100.0	100.0	12472	6.2	.04	.31	.5

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.1	19.7	12831	3.5	.01	.29	.5
FLOAT-1.40	88.3	90.6	12778	3.9	.03	.31	.5
FLOAT-1.60	96.9	98.9	12711	4.4	.03	.31	.5
FLOAT-1.90	98.1	99.6	12645	4.9	.03	.31	.5
TOTAL	100.0	100.0	12458	6.3	.06	.34	.5

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: MOFFAT

COALBED: COLLOM
RAW COAL MOISTURE: 3.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.2	67.7	13253	3.2	0.00	.26	.4
FLOAT-1.40	93.7	95.0	13130	4.1	.01	.27	.4
FLOAT-1.60	99.5	99.7	12979	5.2	.01	.27	.4
FLOAT-1.90	99.8	99.9	12966	5.3	.01	.27	.4
TOTAL	100.0	100.0	12952	5.4	.01	.27	.4

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.9	54.5	13376	2.3	.00	.26	.4
FLOAT-1.40	92.2	93.9	13212	3.5	.00	.27	.4
FLOAT-1.60	99.0	99.4	13034	4.8	.00	.27	.4
FLOAT-1.90	99.7	99.8	12993	5.1	.00	.27	.4
TOTAL	100.0	100.0	12979	5.2	.00	.27	.4

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.2	41.6	13431	1.9	.01	.25	.4
FLOAT-1.40	90.5	92.6	13267	3.1	.01	.27	.4
FLOAT-1.60	98.1	98.9	13075	4.5	.01	.27	.4
FLOAT-1.90	99.4	99.7	13007	5.0	.01	.27	.4
TOTAL	100.0	100.0	12966	5.3	.01	.27	.4

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: FREMONT

COALBED: UNCORRELATED
RAW COAL MOISTURE: 5.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.6	.7	12894	4.1	.10	.53	.8
FLOAT-1.40	75.7	82.6	12517	6.9	.13	.56	.9
FLOAT-1.60	90.6	96.9	12262	8.8	.15	.56	.9
FLOAT-1.90	93.1	98.4	12127	9.8	.16	.57	.9
TOTAL	100.0	100.0	11469	14.7	.17	.55	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	2.0	2.2	12921	3.9	.04	.50	.8
FLOAT-1.40	71.9	79.1	12665	5.8	.07	.50	.8
FLOAT-1.60	89.2	95.9	12369	8.0	.10	.51	.8
FLOAT-1.90	92.7	98.3	12208	9.2	.11	.52	.9
TOTAL	100.0	100.0	11509	14.4	.13	.51	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.4	19.6	12961	3.6	.02	.49	.8
FLOAT-1.40	68.8	76.3	12732	5.3	.03	.49	.8
FLOAT-1.60	86.4	93.8	12464	7.3	.06	.49	.8
FLOAT-1.90	91.5	97.7	12262	8.8	.08	.50	.8
TOTAL	100.0	100.0	11482	14.6	.15	.54	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: LA PLATA

COALBED: UNCORRELATED
RAW COAL MOISTURE: 4.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	73.3	77.5	14018	3.4	.07	.50	.7
FLOAT-1.40	89.1	92.7	13792	4.9	.07	.50	.7
FLOAT-1.60	96.4	98.5	13549	6.5	.08	.50	.7
TOTAL	100.0	100.0	13262	8.4	.10	.51	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.5	71.9	14109	2.8	.09	.47	.7
FLOAT-1.40	86.6	90.7	13867	4.4	.10	.48	.7
FLOAT-1.60	95.8	98.2	13580	6.3	.11	.48	.7
TOTAL	100.0	100.0	13247	8.5	.13	.49	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	69.0	73.6	14185	2.3	.07	.49	.7
FLOAT-1.40	84.3	88.9	14018	3.4	.08	.49	.7
FLOAT-1.60	94.8	97.6	13686	5.6	.08	.49	.7
TOTAL	100.0	100.0	13292	8.2	.11	.50	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: COLORADO
COUNTY: MONTROSE

COALBED: UNCORRELATED
RAW COAL MOISTURE: 2.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.0	36.1	13928	4.5	.23	.79	1.1
FLOAT-1.40	78.9	84.5	13651	6.4	.25	.75	1.1
FLOAT-1.60	92.5	97.2	13388	8.2	.25	.73	1.1
TOTAL	100.0	100.0	12747	12.6	.31	.76	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.0	32.7	14030	3.8	.09	.61	.9
FLOAT-1.40	75.5	80.7	13753	5.7	.12	.60	.9
FLOAT-1.60	92.3	96.7	13476	7.6	.14	.61	.9
TOTAL	100.0	100.0	12864	11.8	.31	.75	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.9	27.4	14045	3.7	.07	.60	.9
FLOAT-1.40	69.6	75.1	13768	5.6	.08	.57	.8
FLOAT-1.60	91.0	96.0	13461	7.7	.10	.56	.8
TOTAL	100.0	100.0	12761	12.5	.31	.74	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: ILLINOIS
COUNTY: CHRISTIAN

COALBED: NO. 6
RAW COAL MOISTURE: 5.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.9	38.1	13120	5.4	.67	3.25	5.0
FLOAT-1.40	65.4	74.8	12952	6.6	.88	3.41	5.3
FLOAT-1.60	82.0	91.8	12674	8.6	1.27	3.77	5.9
TOTAL	100.0	100.0	11321	18.3	2.56	4.71	8.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.1	31.8	13203	4.8	.61	3.27	5.0
FLOAT-1.40	61.8	71.7	13064	5.8	.72	3.34	5.1
FLOAT-1.60	81.0	91.5	12729	8.2	1.16	3.72	5.8
TOTAL	100.0	100.0	11266	18.7	2.43	4.70	8.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.3	16.8	13148	5.2	.65	3.30	5.0
FLOAT-1.40	62.0	70.9	12785	7.8	1.16	3.74	5.9
FLOAT-1.60	81.2	91.8	12646	8.8	1.22	3.76	5.9
TOTAL	100.0	100.0	11182	19.3	2.65	5.12	9.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: DOUGLAS

COALBED: NO. 6
RAW COAL MOISTURE: 7.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	74.6	79.2	13578	5.0	.64	1.67	2.5
FLOAT-1.40	87.6	91.8	13410	6.2	.71	1.73	2.6
FLOAT-1.60	93.0	96.4	13257	7.3	.86	1.88	2.8
TOTAL	100.0	100.0	12795	10.6	1.69	2.71	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.7	75.5	13690	4.2	.53	1.63	2.4
FLOAT-1.40	85.7	90.5	13536	5.3	.59	1.66	2.5
FLOAT-1.60	91.7	95.7	13382	6.4	.70	1.75	2.6
TOTAL	100.0	100.0	12823	10.4	1.71	2.73	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.3	37.1	13857	3.0	.46	1.59	2.3
FLOAT-1.40	75.6	81.1	13759	3.7	.46	1.56	2.3
FLOAT-1.60	89.7	94.4	13494	5.6	.59	1.62	2.4
TOTAL	100.0	100.0	12823	10.4	1.67	2.68	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: DOUGLAS

COALBED: NO. 6
RAW COAL MOISTURE: 7.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	74.0	78.3	13616	4.5	.63	1.78	2.6
FLOAT-1.40	87.1	91.2	13476	5.5	.70	1.83	2.7
FLOAT-1.60	92.8	96.1	13337	6.5	.82	1.92	2.9
TOTAL	100.0	100.0	12876	9.8	2.09	3.13	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.2	71.6	13769	3.4	.49	1.69	2.5
FLOAT-1.40	84.9	89.5	13616	4.5	.56	1.73	2.5
FLOAT-1.60	92.6	96.3	13434	5.8	.68	1.83	2.7
TOTAL	100.0	100.0	12918	9.5	2.10	3.18	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.3	49.5	13783	3.3	.51	1.69	2.5
FLOAT-1.40	78.0	82.8	13699	3.9	.51	1.65	2.4
FLOAT-1.60	92.1	95.9	13434	5.8	.64	1.74	2.6
TOTAL	100.0	100.0	12904	9.6	2.02	3.09	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FRANKLIN

COALBED: NO. 6
RAW COAL MOISTURE: 3.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.6	62.0	13855	3.9	.57	2.39	3.4
FLOAT-1.40	93.0	94.3	13494	6.3	.87	2.57	3.8
FLOAT-1.60	99.0	99.3	13359	7.2	.98	2.64	4.0
TOTAL	100.0	100.0	13314	7.5	1.03	2.69	4.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.3	75.2	13810	4.2	.84	2.42	3.5
FLOAT-1.40	90.7	92.7	13570	5.8	.88	2.52	3.7
FLOAT-1.60	98.1	98.9	13389	7.0	1.00	2.59	3.9
TOTAL	100.0	100.0	13284	7.7	1.11	2.69	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.7	75.7	13825	4.1	.57	2.32	3.4
FLOAT-1.40	89.6	92.1	13660	5.2	.65	2.40	3.5
FLOAT-1.60	97.1	98.3	13449	6.6	.71	2.48	3.7
TOTAL	100.0	100.0	13284	7.7	.92	2.68	4.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FRANKLIN

COALBED: NO. 6
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.1	60.8	13751	4.0	.31	.96	1.4
FLOAT-1.40	84.9	93.2	13422	6.3	.38	1.00	1.5
FLOAT-1.60	89.3	97.0	13293	7.2	.39	1.01	1.5
FLOAT-1.90	91.2	98.4	13192	7.9	.42	1.04	1.6
TOTAL	100.0	100.0	12233	14.6	.59	1.16	1.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.5	60.9	13894	3.0	.27	.91	1.3
FLOAT-1.40	83.5	92.7	13550	5.4	.31	.93	1.4
FLOAT-1.60	87.4	96.3	13450	6.1	.33	.93	1.4
FLOAT-1.90	90.0	98.1	13307	7.1	.35	.95	1.4
TOTAL	100.0	100.0	12204	14.8	.57	1.12	1.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.5	26.0	14038	2.0	.20	.87	1.2
FLOAT-1.40	72.3	81.1	13636	4.8	.28	.91	1.3
FLOAT-1.60	85.8	94.1	13336	6.9	.32	.93	1.4
FLOAT-1.90	91.0	98.3	13135	8.3	.35	.95	1.4
TOTAL	100.0	100.0	12161	15.1	.60	1.15	1.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FULTON

COALBED: NO. 6
RAW COAL MOISTURE: 8.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.7	82.9	13321	4.7	.65	2.43	3.6
FLOAT-1.40	77.1	90.0	13264	5.1	.67	2.45	3.7
FLOAT-1.60	81.5	94.0	13107	6.2	.73	2.48	3.8
TOTAL	100.0	100.0	11364	18.4	3.44	4.95	8.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.3	70.0	13421	4.0	.50	2.42	3.6
FLOAT-1.40	74.9	88.0	13349	4.5	.53	2.44	3.7
FLOAT-1.60	80.6	93.6	13192	5.6	.57	2.45	3.7
TOTAL	100.0	100.0	11364	18.4	3.35	4.99	8.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.4	30.2	13492	3.5	.42	2.29	3.4
FLOAT-1.40	60.8	72.0	13449	3.8	.44	2.32	3.5
FLOAT-1.60	79.4	92.1	13178	5.7	.58	2.40	3.6
TOTAL	100.0	100.0	11364	18.4	3.45	4.93	8.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: JEFFERSON

COALBED: NO. 6
RAW COAL MOISTURE: 4.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.3	45.6	13574	5.3	.32	.96	1.4
FLOAT-1.40	84.1	87.6	13113	8.4	.39	.97	1.5
FLOAT-1.60	95.4	97.4	12861	10.1	.41	.99	1.5
TOTAL	100.0	100.0	12593	11.9	.56	1.12	1.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.1	53.2	13589	5.2	.34	.98	1.4
FLOAT-1.40	80.8	85.3	13232	7.6	.41	1.00	1.5
FLOAT-1.60	93.9	96.8	12920	9.7	.43	1.01	1.6
TOTAL	100.0	100.0	12534	12.3	.60	1.17	1.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.0	56.7	13693	4.5	.30	.95	1.4
FLOAT-1.40	78.9	84.5	13441	6.2	.32	.94	1.4
FLOAT-1.60	93.7	97.7	13084	8.6	.33	.89	1.4
TOTAL	100.0	100.0	12548	12.2	.59	1.20	1.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: JEFFERSON

COALBED: NO. 6
RAW COAL MOISTURE: 7.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.8	53.3	13357	4.4	.38	1.15	1.7
FLOAT-1.40	77.1	91.1	12980	7.1	.47	1.21	1.9
FLOAT-1.60	82.3	96.2	12840	8.1	.52	1.25	1.9
FLOAT-1.90	84.4	97.7	12714	9.0	.56	1.27	2.0
TOTAL	100.0	100.0	10981	21.4	.79	1.43	2.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.8	45.3	13511	3.3	.36	1.12	1.7
FLOAT-1.40	72.7	86.8	13106	6.2	.47	1.19	1.8
FLOAT-1.60	81.4	95.4	12868	7.9	.52	1.23	1.9
FLOAT-1.90	84.3	97.6	12714	9.0	.55	1.25	2.0
TOTAL	100.0	100.0	10981	21.4	.77	1.38	2.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.7	38.5	13567	2.9	.30	1.09	1.6
FLOAT-1.40	63.6	77.6	13189	5.6	.41	1.15	1.7
FLOAT-1.60	79.3	93.3	12728	8.9	.50	1.20	1.9
FLOAT-1.90	84.2	97.5	12519	10.4	.55	1.22	1.9
TOTAL	100.0	100.0	10814	22.6	.73	1.32	2.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: JEFFERSON

COALBED: NO. 6
RAW COAL MOISTURE: 3.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.2	57.1	13871	3.7	.56	1.25	1.8
FLOAT-1.40	73.7	89.4	13309	7.6	.88	1.58	2.4
FLOAT-1.60	79.0	94.3	13108	9.0	.98	1.66	2.5
FLOAT-1.90	81.0	95.5	12935	10.2	1.02	1.69	2.6
TOTAL	100.0	100.0	10976	23.8	1.25	1.84	3.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.5	53.3	13799	4.2	.53	1.20	1.7
FLOAT-1.40	70.7	86.6	13482	6.4	.73	1.37	2.0
FLOAT-1.60	78.5	93.8	13151	8.7	.89	1.50	2.3
FLOAT-1.90	81.5	96.1	12978	9.9	.95	1.56	2.4
TOTAL	100.0	100.0	11005	23.6	1.25	1.78	3.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.1	46.7	13741	4.6	.15	1.15	1.7
FLOAT-1.40	64.8	80.1	13497	6.3	.64	1.29	1.9
FLOAT-1.60	78.7	94.5	13108	9.0	.75	1.34	2.0
FLOAT-1.90	81.9	96.8	12906	10.4	.80	1.38	2.1
TOTAL	100.0	100.0	10918	24.2	1.28	1.76	3.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: KNOX

COALBED: NO. 6
RAW COAL MOISTURE: 6.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.3	50.5	13321	4.0	.68	2.59	3.9
FLOAT-1.40	84.1	87.0	13185	5.0	.80	2.73	4.1
FLOAT-1.60	95.9	97.7	12995	6.4	.93	2.86	4.4
TOTAL	100.0	100.0	12751	8.2	1.07	2.98	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.3	36.8	13293	4.2	.73	2.64	4.0
FLOAT-1.40	79.4	82.6	13266	4.4	.74	2.66	4.0
FLOAT-1.60	94.9	97.1	13049	6.0	.89	2.83	4.3
TOTAL	100.0	100.0	12751	8.2	1.07	2.99	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.8	17.7	13402	3.4	.55	2.54	3.8
FLOAT-1.40	85.5	89.0	13253	4.5	.57	2.54	3.8
FLOAT-1.60	94.3	97.1	13117	5.5	.75	2.71	4.1
TOTAL	100.0	100.0	12738	8.3	1.10	3.06	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: KNOX

COALBED: NO. 6
RAW COAL MOISTURE: 11.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.9	59.0	13029	5.6	1.44	3.30	5.1
FLOAT-1.40	68.9	80.6	12877	6.7	1.80	3.67	5.7
FLOAT-1.60	77.6	89.3	12670	8.2	2.25	4.11	6.5
FLOAT-1.90	81.7	92.6	12477	9.6	2.68	4.58	7.3
TOTAL	100.0	100.0	11014	20.2	5.66	7.69	14.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.2	50.4	13278	3.8	1.09	2.94	4.4
FLOAT-1.40	69.2	81.6	13098	5.1	1.37	3.27	5.0
FLOAT-1.60	78.2	90.8	12905	6.5	1.71	3.64	5.6
FLOAT-1.90	80.7	93.0	12808	7.2	1.93	3.88	6.1
TOTAL	100.0	100.0	11111	19.5	5.39	7.58	13.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.7	38.7	13305	3.6	.83	2.67	4.0
FLOAT-1.40	66.3	79.7	13084	5.2	1.08	2.93	4.5
FLOAT-1.60	75.8	89.8	12905	6.5	1.43	3.34	5.2
FLOAT-1.90	79.4	93.0	12753	7.6	1.62	3.52	5.5
TOTAL	100.0	100.0	10890	21.1	5.92	8.20	15.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: MACOUPIN

COALBED: NO. 6
RAW COAL MOISTURE: 4.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.2	62.7	13106	5.5	.54	3.91	6.0
FLOAT-1.40	82.5	87.5	12890	7.1	.81	4.06	6.3
FLOAT-1.60	91.2	95.6	12741	8.2	1.39	4.56	7.2
TOTAL	100.0	100.0	12159	12.5	2.71	5.73	9.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.4	52.1	13309	4.0	.42	3.89	5.8
FLOAT-1.40	77.8	83.6	13011	6.2	.69	4.00	6.1
FLOAT-1.60	89.6	94.6	12781	7.9	1.22	4.44	6.9
TOTAL	100.0	100.0	12105	12.9	2.72	5.78	9.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.4	13.8	13458	2.9	.50	4.11	6.1
FLOAT-1.40	76.8	83.2	13106	5.5	.58	3.97	6.1
FLOAT-1.60	88.5	94.1	12863	7.3	.98	4.17	6.5
TOTAL	100.0	100.0	12091	13.0	2.91	6.01	9.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: MONTGOMERY

COALBED: NO. 6
RAW COAL MOISTURE: 8.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.8	46.9	13209	5.5	.51	3.23	4.9
FLOAT-1.40	83.3	85.7	12999	7.2	.62	3.42	5.3
FLOAT-1.60	95.3	96.9	12838	8.5	.81	3.68	5.7
TOTAL	100.0	100.0	12628	10.2	1.16	3.96	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.6	40.3	13135	6.1	.88	3.50	5.3
FLOAT-1.40	78.4	81.4	13060	6.7	1.07	3.67	5.6
FLOAT-1.60	94.1	96.1	12850	8.4	1.11	3.87	6.0
TOTAL	100.0	100.0	12578	10.6	1.48	4.15	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.9	20.3	13431	3.7	.52	3.11	4.6
FLOAT-1.40	74.3	78.3	13159	5.9	.68	3.30	5.0
FLOAT-1.60	93.1	96.6	12949	7.6	1.01	3.45	5.3
TOTAL	100.0	100.0	12480	11.4	1.54	4.00	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: MONTGOMERY

COALBED: NO. 6
RAW COAL MOISTURE: 10.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.1	32.0	13252	4.7	.65	3.01	4.5
FLOAT-1.40	74.5	82.6	12905	7.2	1.04	3.33	5.2
FLOAT-1.60	85.2	92.7	12668	8.9	1.35	3.60	5.7
FLOAT-1.90	90.0	96.3	12460	10.4	1.62	3.82	6.1
TOTAL	100.0	100.0	11639	16.3	2.85	4.92	8.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.5	19.1	13433	3.4	.49	2.87	4.3
FLOAT-1.40	71.4	80.4	13072	6.0	.88	3.25	5.0
FLOAT-1.60	84.1	92.6	12780	8.1	1.16	3.48	5.4
FLOAT-1.90	88.4	95.8	12585	9.5	1.34	3.61	5.7
TOTAL	100.0	100.0	11611	16.5	2.94	5.05	8.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.2	21.3	13544	2.6	.40	2.73	4.0
FLOAT-1.40	60.1	68.6	13183	5.2	.69	3.02	4.6
FLOAT-1.60	85.1	93.0	12627	9.2	1.15	3.33	5.3
FLOAT-1.90	89.2	96.2	12460	10.4	1.29	3.44	5.5
TOTAL	100.0	100.0	11556	16.9	2.83	4.89	8.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: PEORIA

COALBED: NO. 6
RAW COAL MOISTURE: 9.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB S02/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.0	78.5	13234	4.9	.70	2.70	4.1
FLOAT-1.40	75.9	86.8	13121	5.7	.78	2.76	4.2
FLOAT-1.60	82.4	92.7	12909	7.2	.92	2.85	4.4
TOTAL	100.0	100.0	11469	17.4	2.61	4.28	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB S02/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.4	64.6	13375	3.9	.56	2.50	3.7
FLOAT-1.40	72.9	84.3	13262	4.7	.63	2.60	3.9
FLOAT-1.60	81.0	92.0	13022	6.4	.76	2.68	4.1
TOTAL	100.0	100.0	11469	17.4	2.76	4.42	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB S02/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.9	9.2	13389	3.8	.47	2.39	3.6
FLOAT-1.40	57.7	68.0	13516	2.9	.37	2.47	3.7
FLOAT-1.60	79.6	91.1	13121	5.7	.65	2.66	4.1
TOTAL	100.0	100.0	11469	17.4	2.73	4.37	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: PERRY

COALBED: NO. 6
RAW COAL MOISTURE: 3.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB S02/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.9	39.0	13458	3.7	.48	2.61	3.9
FLOAT-1.40	74.5	82.4	12928	7.5	.86	2.83	4.4
FLOAT-1.60	86.5	93.7	12663	9.4	1.17	3.08	4.9
TOTAL	100.0	100.0	11687	16.4	2.45	4.19	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB S02/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.0	53.5	13514	3.3	.50	2.58	3.8
FLOAT-1.40	73.7	83.3	13138	6.0	.73	2.74	4.2
FLOAT-1.60	83.7	92.6	12859	8.0	.90	2.83	4.4
TOTAL	100.0	100.0	11617	16.9	2.60	4.28	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB S02/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.9	49.9	13598	2.7	.39	2.45	3.6
FLOAT-1.40	68.2	77.6	13291	4.9	.63	2.60	3.9
FLOAT-1.60	83.8	92.3	12873	7.9	.82	2.72	4.2
TOTAL	100.0	100.0	11687	16.4	2.68	4.33	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: PERRY

COALBED: NO. 6
RAW COAL MOISTURE: 6.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.6	54.5	13500	4.2	.52	2.68	4.0
FLOAT-1.40	83.3	88.9	13108	7.0	.75	2.79	4.3
FLOAT-1.60	90.4	95.4	12954	8.1	.93	2.94	4.5
TOTAL	100.0	100.0	12281	12.9	1.73	3.56	5.8
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.9	60.4	13584	3.6	.44	2.53	3.7
FLOAT-1.40	79.9	86.0	13290	5.7	.60	2.63	4.0
FLOAT-1.60	89.8	95.0	13066	7.3	.75	2.74	4.2
TOTAL	100.0	100.0	12351	12.4	1.78	3.58	5.8
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.1	49.2	13725	2.6	.35	2.54	3.7
FLOAT-1.40	73.6	80.6	13472	4.4	.51	2.64	3.9
FLOAT-1.60	87.5	93.7	13178	6.5	.63	2.68	4.1
TOTAL	100.0	100.0	12309	12.7	1.57	3.48	5.7
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

STATE: ILLINOIS
COUNTY: RANDOLPH

COALBED: NO. 6
RAW COAL MOISTURE: 7.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.5	31.9	13171	4.6	.61	2.27	3.4
FLOAT-1.40	70.4	81.4	12673	8.2	.92	2.76	4.4
FLOAT-1.60	82.5	93.3	12396	10.2	1.15	2.99	4.8
TOTAL	100.0	100.0	10957	20.6	2.29	3.84	7.0
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.8	40.9	13268	3.9	.57	2.59	3.9
FLOAT-1.40	69.2	80.9	12825	7.1	.81	2.79	4.4
FLOAT-1.60	81.4	93.0	12535	9.2	1.01	2.94	4.7
TOTAL	100.0	100.0	10971	20.5	2.35	3.97	7.2
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.6	27.4	13241	4.1	.55	2.56	3.9
FLOAT-1.40	57.9	68.9	12991	5.9	.74	2.67	4.1
FLOAT-1.60	78.5	90.5	12590	8.8	.92	2.79	4.4
TOTAL	100.0	100.0	10916	20.9	2.41	3.96	7.3
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

STATE: ILLINOIS
COUNTY: RANDOLPH

COALBED: NO. 6
RAW COAL MOISTURE: 6.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.8	43.5	13224	4.7	.49	2.63	4.0
FLOAT-1.40	76.7	82.9	12754	8.1	.77	2.78	4.4
FLOAT-1.60	88.8	94.1	12505	9.9	1.20	3.10	5.0
TOTAL	100.0	100.0	11799	15.0	2.59	4.39	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.4	48.9	13348	3.8	.30	2.65	4.0
FLOAT-1.40	74.6	81.6	12961	6.6	.56	2.74	4.2
FLOAT-1.60	87.7	93.6	12657	8.8	.81	2.92	4.6
TOTAL	100.0	100.0	11855	14.6	2.55	4.47	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.2	53.9	13210	4.8	.29	2.65	4.0
FLOAT-1.40	67.5	74.8	13099	5.6	.44	2.70	4.1
FLOAT-1.60	88.0	93.9	12602	9.2	.88	3.00	4.8
TOTAL	100.0	100.0	11813	14.9	2.56	4.50	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: ST. CLAIR

COALBED: NO. 6
RAW COAL MOISTURE: 6.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.6	40.6	13257	5.7	.80	2.94	4.4
FLOAT-1.40	82.9	85.1	12930	8.0	.97	3.13	4.8
FLOAT-1.60	96.9	97.9	12717	9.5	1.26	3.39	5.3
TOTAL	100.0	100.0	12589	10.4	1.44	3.55	5.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.4	40.2	13513	3.9	.54	2.71	4.0
FLOAT-1.40	79.5	82.9	13115	6.7	.74	2.94	4.5
FLOAT-1.60	94.8	96.6	12817	8.8	.94	3.11	4.9
TOTAL	100.0	100.0	12575	10.5	1.33	3.46	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.3	18.6	13613	3.2	.51	2.66	3.9
FLOAT-1.40	77.2	80.2	13129	6.6	.75	2.87	4.4
FLOAT-1.60	93.6	96.2	12987	7.6	.84	3.12	4.8
TOTAL	100.0	100.0	12632	10.1	1.43	3.69	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: ST CLAIR

COALBED: NO. 6
RAW COAL MOISTURE: 7.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.9	41.7	13247	5.1	.53	3.29	5.0
FLOAT-1.40	72.9	79.5	12791	8.4	.89	3.60	5.6
FLOAT-1.60	86.3	92.1	12514	10.4	1.66	4.37	7.0
TOTAL	100.0	100.0	11725	16.1	3.82	6.30	10.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.0	44.6	13414	3.9	.49	3.33	5.0
FLOAT-1.40	69.6	77.3	13026	6.7	.78	3.49	5.4
FLOAT-1.60	84.3	91.3	12694	9.1	1.35	3.99	6.3
TOTAL	100.0	100.0	11725	16.1	3.77	6.22	10.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.1	26.4	13372	4.2	.45	3.30	4.9
FLOAT-1.40	54.3	60.9	13123	6.0	.65	3.46	5.3
FLOAT-1.60	79.6	86.4	12694	9.1	1.12	3.72	5.9
TOTAL	100.0	100.0	11697	16.3	3.74	6.13	10.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: SALINE

COALBED: NO. 6
RAW COAL MOISTURE: 1.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.3	37.9	13745	3.4	.49	2.28	3.3
FLOAT-1.40	69.3	80.7	13219	7.1	.88	2.70	4.1
FLOAT-1.60	79.9	91.0	12934	9.1	1.10	2.89	4.5
FLOAT-1.90	84.6	94.6	12692	10.8	1.30	3.07	4.8
TOTAL	100.0	100.0	11355	20.2	3.34	5.20	9.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.7	56.5	13774	3.2	.48	2.19	3.2
FLOAT-1.40	69.6	82.6	13503	5.1	.70	2.44	3.6
FLOAT-1.60	78.0	90.8	13247	6.9	.85	2.57	3.9
FLOAT-1.90	82.7	94.3	12977	8.8	.99	2.68	4.1
TOTAL	100.0	100.0	11383	20.0	3.30	5.05	8.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.0	46.2	13788	3.1	.46	2.16	3.1
FLOAT-1.40	62.0	73.8	13503	5.1	.69	2.42	3.6
FLOAT-1.60	77.6	89.9	13133	7.7	.92	2.63	4.0
FLOAT-1.90	83.5	94.6	12849	9.7	1.08	2.74	4.3
TOTAL	100.0	100.0	11340	20.3	3.15	4.94	8.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: STARK

COALBED: NO. 6
RAW COAL MOISTURE: 5.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	73.4	85.2	13058	4.9	.48	2.48	3.8
FLOAT-1.40	78.1	90.5	13044	5.0	.51	2.49	3.8
FLOAT-1.60	82.6	94.9	12931	5.8	.58	2.52	3.9
TOTAL	100.0	100.0	11253	17.6	2.34	3.96	7.0
EPA STANDARD	.....	.....	.....	.....	.....	.....	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.4	62.1	13357	2.8	.46	2.36	3.5
FLOAT-1.40	70.2	83.0	13314	3.1	.50	2.37	3.6
FLOAT-1.60	80.1	93.4	13144	4.3	.62	2.44	3.7
TOTAL	100.0	100.0	11268	17.5	2.48	3.98	7.1
EPA STANDARD	.....	.....	.....	.....	.....	.....	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.1	25.9	13257	3.5	.47	2.33	3.5
FLOAT-1.40	62.1	72.8	13243	3.6	.46	2.33	3.5
FLOAT-1.60	81.1	93.7	13044	5.0	.62	2.48	3.8
TOTAL	100.0	100.0	11296	17.3	2.48	3.99	7.1
EPA STANDARD	.....	.....	.....	.....	.....	.....	1.20

STATE: ILLINOIS
COUNTY: WILLIAMSON

COALBED: NO. 6
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.4	39.7	13897	3.4	.38	1.65	2.4
FLOAT-1.40	80.1	86.2	13323	7.4	.66	1.98	3.0
FLOAT-1.60	91.3	96.5	13079	9.1	.86	2.17	3.3
TOTAL	100.0	100.0	12376	14.0	1.95	3.19	5.2
EPA STANDARD	.....	.....	.....	.....	.....	.....	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.0	48.5	13954	3.0	.30	1.63	2.3
FLOAT-1.40	78.2	85.4	13510	6.1	.57	1.90	2.8
FLOAT-1.60	88.0	94.2	13251	7.9	.71	1.99	3.0
TOTAL	100.0	100.0	12376	14.0	1.99	3.16	5.1
EPA STANDARD	.....	.....	.....	.....	.....	.....	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.4	70.3	13940	3.1	.34	1.69	2.4
FLOAT-1.40	75.6	84.1	13768	4.3	.44	1.79	2.6
FLOAT-1.60	80.1	88.2	13624	5.3	.50	1.84	2.7
TOTAL	100.0	100.0	12376	14.0	1.97	3.11	5.0
EPA STANDARD	.....	.....	.....	.....	.....	.....	1.20

STATE: ILLINOIS
COUNTY: WILLIAMSON

COALBED: NO. 6
RAW COAL MOISTURE: 4.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.6	54.5	13849	3.6	.47	1.55	2.2
FLOAT-1.40	82.3	90.0	13491	6.1	.69	1.79	2.7
FLOAT-1.60	89.1	96.1	13319	7.3	.82	1.90	2.9
TOTAL	100.0	100.0	12343	14.1	1.67	2.65	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.2	62.1	13892	3.3	.42	1.56	2.2
FLOAT-1.40	81.8	89.9	13577	5.5	.64	1.75	2.6
FLOAT-1.60	89.1	96.4	13376	6.9	.76	1.84	2.8
TOTAL	100.0	100.0	12357	14.0	1.66	2.64	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.0	49.9	13979	2.7	.46	1.45	2.1
FLOAT-1.40	79.5	88.3	13677	4.8	.62	1.60	2.3
FLOAT-1.60	88.5	96.9	13476	6.2	.71	1.67	2.5
TOTAL	100.0	100.0	12314	14.3	1.68	2.55	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: WILLIAMSON

COALBED: NO. 6
RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.4	50.0	13281	4.2	.46	2.37	3.6
FLOAT-1.40	72.7	82.8	12837	7.4	.64	2.50	3.9
FLOAT-1.60	83.6	93.1	12546	9.5	.89	2.74	4.4
FLOAT-1.90	87.6	96.0	12352	10.9	1.09	2.94	4.8
TOTAL	100.0	100.0	11271	18.7	2.59	4.35	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.8	57.2	13350	3.7	.42	2.33	3.5
FLOAT-1.40	74.1	84.5	12976	6.4	.57	2.44	3.8
FLOAT-1.60	82.2	92.2	12768	7.9	.69	2.52	3.9
FLOAT-1.90	86.8	95.7	12546	9.5	.82	2.63	4.2
TOTAL	100.0	100.0	11382	17.9	2.49	4.21	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.1	46.8	13378	3.5	.41	2.30	3.4
FLOAT-1.40	62.2	72.9	13114	5.4	.52	2.38	3.6
FLOAT-1.60	80.4	90.9	12643	8.8	.74	2.53	4.0
FLOAT-1.90	85.8	95.0	12394	10.6	.86	2.62	4.2
TOTAL	100.0	100.0	11188	19.3	2.87	4.53	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: WILLIAMSON

COALBED: NO. 6
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.8	33.1	13753	3.8	.58	1.56	2.3
FLOAT-1.40	77.2	88.1	13181	7.8	.82	1.82	2.8
FLOAT-1.60	84.4	94.9	12995	9.1	.93	1.92	3.0
FLOAT-1.90	87.1	96.9	12852	10.1	1.03	2.01	3.1
TOTAL	100.0	100.0	11551	19.2	1.57	2.47	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.0	50.1	13781	3.6	.43	1.41	2.0
FLOAT-1.40	75.3	87.3	13395	6.3	.64	1.63	2.4
FLOAT-1.60	83.2	94.9	13181	7.8	.75	1.74	2.6
FLOAT-1.90	86.2	97.2	13024	8.9	.84	1.82	2.8
TOTAL	100.0	100.0	11551	19.2	1.51	2.41	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.8	28.7	13796	3.5	.30	1.23	1.8
FLOAT-1.40	66.4	77.9	13438	6.0	.53	1.49	2.2
FLOAT-1.60	81.2	92.7	13067	8.6	.68	1.63	2.5
FLOAT-1.90	87.3	97.5	12795	10.5	.79	1.72	2.7
TOTAL	100.0	100.0	11451	19.9	1.49	2.34	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: WILLIAMSON

COALBED: NO. 6
RAW COAL MOISTURE: 3.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.6	49.2	13852	3.7	.50	2.22	3.2
FLOAT-1.40	85.3	88.7	13359	7.2	.71	2.41	3.6
FLOAT-1.60	94.5	96.8	13161	8.6	.99	2.66	4.0
TOTAL	100.0	100.0	12850	10.8	1.68	3.31	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.9	56.0	13881	3.5	.32	2.16	3.1
FLOAT-1.40	84.7	89.0	13514	6.1	.59	2.35	3.5
FLOAT-1.60	93.3	96.5	13302	7.6	.79	2.52	3.8
TOTAL	100.0	100.0	12865	10.7	1.71	3.32	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.0	71.9	13810	4.0	.36	2.20	3.2
FLOAT-1.40	84.3	89.0	13584	5.6	.53	2.27	3.3
FLOAT-1.60	92.7	96.3	13359	7.2	.75	2.45	3.7
TOTAL	100.0	100.0	12865	10.7	1.74	3.34	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FRANKLIN

COALBED: NO. 5
RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.0	54.0	13406	3.9	.46	1.91	2.8
FLOAT-1.40	81.8	87.8	13057	6.4	.60	2.03	3.1
FLOAT-1.60	90.7	95.8	12848	7.9	.72	2.13	3.3
FLOAT-1.90	93.1	97.5	12737	8.7	.87	2.28	3.6
TOTAL	100.0	100.0	12165	12.8	1.77	3.15	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.9	49.8	13518	3.1	.39	1.83	2.7
FLOAT-1.40	78.9	85.5	13211	5.3	.55	1.93	2.9
FLOAT-1.60	89.9	95.5	12946	7.2	.65	2.01	3.1
FLOAT-1.90	92.3	97.2	12834	8.0	.73	2.08	3.2
TOTAL	100.0	100.0	12193	12.6	1.74	3.07	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.3	38.3	13573	2.7	.37	1.82	2.7
FLOAT-1.40	75.5	81.8	13183	5.5	.54	1.94	2.9
FLOAT-1.60	90.0	95.5	12904	7.5	.66	2.02	3.1
FLOAT-1.90	92.7	97.5	12792	8.3	.74	2.08	3.3
TOTAL	100.0	100.0	12165	12.8	1.77	3.08	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FULTON

COALBED: NO. 5
RAW COAL MOISTURE: 5.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.6	61.3	13101	7.2	.42	2.54	3.9
FLOAT-1.40	88.5	90.1	12955	8.3	.65	2.76	4.3
FLOAT-1.60	97.8	98.5	12822	9.3	.97	3.07	4.8
TOTAL	100.0	100.0	12729	10.0	1.10	3.17	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.2	43.9	13234	6.2	.43	2.56	3.9
FLOAT-1.40	82.3	84.7	13088	7.3	.53	2.66	4.1
FLOAT-1.60	96.0	97.3	12889	8.8	.92	3.02	4.7
TOTAL	100.0	100.0	12716	10.1	1.15	3.20	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.4	7.8	13474	4.4	.50	2.45	3.6
FLOAT-1.40	82.3	84.9	13168	6.7	.49	2.60	3.9
FLOAT-1.60	95.2	97.0	13008	7.9	.66	2.81	4.3
TOTAL	100.0	100.0	12769	9.7	1.04	3.12	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FULTON

COALBED: NO. 5
RAW COAL MOISTURE: 4.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.1	71.1	12899	7.7	.55	2.67	4.1
FLOAT-1.40	86.1	89.2	12803	8.4	.76	2.88	4.5
FLOAT-1.60	95.4	97.3	12611	9.8	1.09	3.20	5.1
TOTAL	100.0	100.0	12363	11.6	1.46	3.55	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.6	66.0	13037	6.7	.47	2.68	4.1
FLOAT-1.40	87.8	90.3	12913	7.6	.65	2.84	4.4
FLOAT-1.60	96.7	98.2	12748	8.8	.97	3.15	4.9
TOTAL	100.0	100.0	12556	10.2	1.30	3.45	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.0	11.1	13656	2.2	.18	2.42	3.5
FLOAT-1.40	83.7	88.5	13051	6.6	.51	2.73	4.2
FLOAT-1.60	92.0	95.5	12817	8.3	.80	3.03	4.7
TOTAL	100.0	100.0	12349	11.7	1.46	3.65	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FULTON

COALBED: NO. 5
RAW COAL MOISTURE: 5.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.1	67.1	12779	8.6	1.12	2.73	4.3
FLOAT-1.40	83.0	86.1	12676	9.4	1.19	2.88	4.5
FLOAT-1.60	94.0	96.1	12483	10.9	1.46	3.19	5.1
TOTAL	100.0	100.0	12213	13.0	1.92	3.63	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.4	54.9	13063	6.4	.48	2.69	4.1
FLOAT-1.40	81.9	85.9	12844	8.1	.75	2.87	4.5
FLOAT-1.60	91.6	94.9	12676	9.4	1.04	3.12	4.9
TOTAL	100.0	100.0	12239	12.8	1.74	3.75	6.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.8	5.3	13462	3.3	.27	1.68	2.5
FLOAT-1.40	71.9	77.1	13101	6.1	.48	2.48	3.8
FLOAT-1.60	93.9	98.1	12754	8.8	.85	2.90	4.5
TOTAL	100.0	100.0	12213	13.0	1.79	3.81	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FULTON

COALBED: NO. 5
RAW COAL MOISTURE: 10.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.0	51.0	12858	8.0	.60	2.62	4.1
FLOAT-1.40	69.2	78.9	12638	9.6	.99	2.97	4.7
FLOAT-1.60	81.8	91.4	12390	11.4	1.35	3.28	5.3
FLOAT-1.90	87.2	95.5	12143	13.2	1.55	3.43	5.6
TOTAL	100.0	100.0	11083	20.9	2.47	4.17	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.0	37.1	13023	6.8	.58	2.59	4.0
FLOAT-1.40	69.4	79.2	12817	8.3	.76	2.73	4.3
FLOAT-1.60	83.0	92.7	12542	10.3	1.05	2.98	4.8
FLOAT-1.90	86.8	95.6	12377	11.5	1.18	3.06	4.9
TOTAL	100.0	100.0	11235	19.8	2.26	3.98	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.8	29.7	13298	4.8	.48	2.44	3.7
FLOAT-1.40	65.6	76.4	12941	7.4	.66	2.60	4.0
FLOAT-1.60	81.3	92.5	12638	9.6	.97	2.85	4.5
FLOAT-1.90	85.7	96.0	12445	11.0	1.09	2.92	4.7
TOTAL	100.0	100.0	11111	20.7	2.37	4.04	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: GALLATIN

COALBED: NO. 5
RAW COAL MOISTURE: 3.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.9	40.6	13715	4.6	.41	2.29	3.3
FLOAT-1.40	68.5	84.2	13240	7.9	.84	2.51	3.8
FLOAT-1.60	77.2	92.9	12953	9.9	1.22	2.82	4.4
FLOAT-1.90	79.7	95.0	12838	10.7	1.50	3.07	4.8
TOTAL	100.0	100.0	10767	25.1	2.74	4.06	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.3	32.4	13830	3.8	.33	2.25	3.3
FLOAT-1.40	62.7	77.1	13269	7.7	.84	2.60	3.9
FLOAT-1.60	78.1	92.6	12794	11.0	1.33	3.02	4.7
FLOAT-1.90	81.6	95.6	12651	12.0	1.51	3.15	5.0
TOTAL	100.0	100.0	10796	24.9	2.86	4.29	7.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	21.5	27.8	13916	3.2	.26	2.27	3.3
FLOAT-1.40	59.9	74.3	13355	7.1	.98	2.51	3.8
FLOAT-1.60	76.5	91.5	12881	10.4	1.35	2.77	4.3
FLOAT-1.90	81.9	95.7	12579	12.5	1.53	2.92	4.6
TOTAL	100.0	100.0	10767	25.1	2.77	3.94	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: PERRY

COALBED: NO. 5
RAW COAL MOISTURE: 6.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.5	25.5	13833	3.4	.42	2.67	3.9
FLOAT-1.40	79.6	86.5	13246	7.5	.84	3.09	4.7
FLOAT-1.60	88.1	94.4	13060	8.8	1.14	3.37	5.2
FLOAT-1.90	91.2	96.8	12931	9.7	1.39	3.61	5.6
TOTAL	100.0	100.0	12186	14.9	2.54	4.66	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.8	31.8	13919	2.8	.37	2.66	3.8
FLOAT-1.40	73.1	80.7	13432	6.2	.68	2.93	4.4
FLOAT-1.60	87.2	94.1	13131	8.3	.89	3.10	4.7
FLOAT-1.90	90.4	96.6	13003	9.2	1.06	3.25	5.0
TOTAL	100.0	100.0	12172	15.0	2.38	4.48	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.5	32.9	13976	2.4	.36	2.59	3.7
FLOAT-1.40	69.2	77.2	13518	5.6	.60	2.83	4.2
FLOAT-1.60	85.6	93.0	13160	8.1	.87	3.03	4.6
FLOAT-1.90	89.9	96.4	12988	9.3	1.05	3.18	4.9
TOTAL	100.0	100.0	12115	15.4	2.48	4.55	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: PERRY

COALBED: NO. 5
RAW COAL MOISTURE: 5.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.2	62.1	13298	5.3	.36	3.02	4.5
FLOAT-1.40	91.5	94.2	13046	7.1	.43	3.04	4.7
FLOAT-1.60	94.0	96.5	13004	7.4	.48	3.07	4.7
TOTAL	100.0	100.0	12667	9.8	1.23	3.71	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.6	55.6	13424	4.4	.29	3.03	4.5
FLOAT-1.40	88.7	92.0	13172	6.2	.39	3.04	4.6
FLOAT-1.60	94.0	96.8	13074	6.9	.42	3.04	4.7
TOTAL	100.0	100.0	12696	9.6	1.23	3.77	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.3	52.7	13550	3.5	.28	2.96	4.4
FLOAT-1.40	81.1	85.3	13340	5.0	.35	3.00	4.5
FLOAT-1.60	93.2	96.5	13130	6.5	.41	3.00	4.6
TOTAL	100.0	100.0	12681	9.7	1.35	3.82	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: RANDOLPH

COALBED: NO. 5
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.0	47.4	13607	4.3	.42	3.05	4.5
FLOAT-1.40	72.5	77.7	13236	6.9	1.05	3.60	5.4
FLOAT-1.60	91.1	94.2	12764	10.2	2.05	4.49	7.0
TOTAL	100.0	100.0	12349	13.1	3.41	5.74	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.4	51.3	13665	3.9	.42	2.98	4.4
FLOAT-1.40	72.6	78.2	13322	6.3	.91	3.42	5.1
FLOAT-1.60	89.9	93.4	12850	9.6	1.75	4.15	6.5
TOTAL	100.0	100.0	12364	13.0	3.32	5.64	9.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.6	53.4	13736	3.4	.39	2.85	4.1
FLOAT-1.40	67.8	74.2	13407	5.7	.78	3.04	4.5
FLOAT-1.60	85.3	90.1	12936	9.0	1.41	3.71	5.7
TOTAL	100.0	100.0	12249	13.8	3.68	5.91	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: SALINE

COALBED: NO. 5
RAW COAL MOISTURE: 1.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.3	27.4	13969	3.5	.42	1.40	2.0
FLOAT-1.40	80.2	90.7	13419	7.3	1.01	1.93	2.9
FLOAT-1.60	85.9	96.3	13304	8.1	1.23	2.21	3.3
FLOAT-1.90	87.2	97.3	13246	8.5	1.34	2.32	3.5
TOTAL	100.0	100.0	11870	18.0	2.29	3.34	5.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.1	39.2	14042	3.0	.42	1.37	2.0
FLOAT-1.40	76.9	88.0	13579	6.2	.81	1.73	2.5
FLOAT-1.60	84.4	95.4	13419	7.3	.99	1.94	2.9
FLOAT-1.90	85.9	96.7	13361	7.7	1.10	2.05	3.1
TOTAL	100.0	100.0	11870	18.0	2.34	3.27	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	21.9	26.3	14100	2.6	.38	1.32	1.9
FLOAT-1.40	62.5	73.1	13709	5.3	.65	1.66	2.4
FLOAT-1.60	82.4	93.4	13289	8.2	.95	1.97	3.0
FLOAT-1.90	85.9	96.3	13144	9.2	1.08	2.09	3.2
TOTAL	100.0	100.0	11726	19.0	2.49	3.48	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: FULTON

COALBED: NO. 2
RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.6	66.9	13228	4.8	1.44	2.73	4.1
FLOAT-1.40	68.7	82.1	13131	5.5	1.68	3.04	4.6
FLOAT-1.60	77.6	90.9	12881	7.3	2.12	3.58	5.6
FLOAT-1.90	82.0	94.3	12645	9.0	2.42	3.94	6.2
TOTAL	100.0	100.0	10991	20.9	4.04	5.49	10.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.9	31.2	13381	3.7	1.09	2.27	3.4
FLOAT-1.40	69.2	82.4	13214	4.9	1.50	2.80	4.2
FLOAT-1.60	78.6	91.8	12964	6.7	1.92	3.33	5.1
FLOAT-1.90	82.5	94.8	12756	8.2	2.17	3.64	5.7
TOTAL	100.0	100.0	11102	20.1	4.17	5.52	9.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.5	37.5	13450	3.2	.85	2.01	3.0
FLOAT-1.40	68.6	83.3	13298	4.3	1.19	2.45	3.7
FLOAT-1.60	76.1	91.1	13103	5.7	1.46	2.76	4.2
FLOAT-1.90	81.2	95.1	12825	7.7	1.72	3.04	4.7
TOTAL	100.0	100.0	10949	21.2	4.40	5.56	10.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: ILLINOIS
COUNTY: PEORIA

COALBED: NO. 2
RAW COAL MOISTURE: 8.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.3	78.6	13716	4.2	.85	2.80	4.1
FLOAT-1.40	83.2	91.2	13644	4.7	1.10	3.07	4.5
FLOAT-1.60	87.2	94.9	13544	5.4	1.33	3.31	4.9
FLOAT-1.90	89.9	96.8	13401	6.4	1.54	3.51	5.2
TOTAL	100.0	100.0	12442	13.1	3.35	5.21	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.9	61.1	13902	2.9	.49	2.45	3.5
FLOAT-1.40	83.5	92.1	13773	3.8	.77	2.79	4.1
FLOAT-1.60	86.9	95.4	13701	4.3	.96	2.99	4.4
FLOAT-1.90	88.2	96.3	13630	4.8	1.05	3.09	4.5
TOTAL	100.0	100.0	12485	12.8	3.26	5.23	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.5	50.9	13931	2.7	.39	2.34	3.4
FLOAT-1.40	79.7	88.2	13773	3.8	.66	2.66	3.9
FLOAT-1.60	87.0	95.2	13616	4.9	.98	3.00	4.4
FLOAT-1.90	89.0	96.8	13530	5.5	1.11	3.13	4.6
TOTAL	100.0	100.0	12442	13.1	3.24	5.22	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: SULLIVAN

COALBED: NO. VII
RAW COAL MOISTURE: 3.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	83.0	85.8	13362	7.5	.54	1.19	1.8
FLOAT-1.40	92.4	94.7	13249	8.3	.56	1.21	1.8
FLOAT-1.60	96.2	98.1	13179	8.8	.63	1.28	1.9
TOTAL	100.0	100.0	12925	10.6	1.16	1.82	2.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	69.6	73.5	13659	5.4	.42	1.08	1.6
FLOAT-1.40	86.3	89.8	13461	6.8	.45	1.10	1.6
FLOAT-1.60	95.0	97.5	13278	8.1	.50	1.14	1.7
TOTAL	100.0	100.0	12939	10.5	1.23	1.87	2.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.8	25.9	14110	2.2	.23	.81	1.1
FLOAT-1.40	75.0	79.2	13673	5.3	.32	.97	1.4
FLOAT-1.60	94.3	97.2	13348	7.6	.38	1.02	1.5
TOTAL	100.0	100.0	12953	10.4	1.19	1.84	2.8
EPA STANDARD	34.6	37.1	14026	2.5	.24	.84	1.20

STATE: INDIANA
COUNTY: SULLIVAN

COALBED: NO. VII
RAW COAL MOISTURE: 13.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.6	57.7	13639	4.9	.03	.33	.5
FLOAT-1.40	92.1	94.2	13211	7.8	.06	.33	.5
FLOAT-1.60	97.2	98.4	13077	8.7	.09	.36	.6
TOTAL	100.0	100.0	12915	9.8	.43	.70	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.3	56.7	13743	4.2	.07	.32	.5
FLOAT-1.40	88.2	91.2	13358	6.8	.07	.34	.5
FLOAT-1.60	96.6	98.3	13137	8.3	.07	.34	.5
TOTAL	100.0	100.0	12915	9.8	.39	.65	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.4	43.1	13802	3.8	.03	.31	.4
FLOAT-1.40	85.2	88.5	13432	6.3	.06	.32	.5
FLOAT-1.60	96.5	98.4	13181	8.0	.06	.33	.5
TOTAL	100.0	100.0	12930	9.7	.41	.67	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: INDIANA
COUNTY: VIGO

COALBED: NO. VII
RAW COAL MOISTURE: 4.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	74.7	78.9	13329	6.8	.38	.90	1.4
FLOAT-1.40	89.4	93.1	13143	8.1	.41	.91	1.4
FLOAT-1.60	94.3	97.4	13029	8.9	.43	.94	1.4
TOTAL	100.0	100.0	12616	11.8	.95	1.46	2.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.6	70.7	13571	5.1	.29	.85	1.3
FLOAT-1.40	84.5	89.6	13343	6.7	.34	.87	1.3
FLOAT-1.60	92.5	96.5	13129	8.2	.38	.91	1.4
TOTAL	100.0	100.0	12587	12.0	1.01	1.54	2.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.7	42.1	13928	2.6	.15	.68	1.0
FLOAT-1.40	78.7	85.4	13514	5.5	.21	.73	1.1
FLOAT-1.60	89.9	94.9	13157	8.0	.27	.77	1.2
TOTAL	100.0	100.0	12459	12.9	1.03	1.52	2.4
EPA STANDARD	93.3	97.8	13141	8.8	.29	.78	1.20

STATE: INDIANA
COUNTY: SULLIVAN

COALBED: NO. VI
RAW COAL MOISTURE: 3.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.9	67.4	13459	4.8	.68	1.68	2.5
FLOAT-1.40	82.0	90.3	13177	6.8	.88	1.88	2.9
FLOAT-1.60	87.8	95.6	13022	7.9	1.00	1.99	3.1
TOTAL	100.0	100.0	11965	15.4	1.96	2.87	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.9	62.5	13614	3.7	.63	1.63	2.4
FLOAT-1.40	78.6	87.6	13318	5.8	.85	1.87	2.8
FLOAT-1.60	87.0	95.3	13093	7.4	1.00	2.01	3.1
TOTAL	100.0	100.0	11951	15.5	1.91	2.85	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.3	40.0	13798	2.4	.41	1.38	2.0
FLOAT-1.40	70.8	80.1	13389	5.3	.74	1.73	2.6
FLOAT-1.60	85.4	94.2	13065	7.6	.92	1.91	2.9
TOTAL	100.0	100.0	11838	16.3	2.04	2.93	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: SULLIVAN

COALBED: NO. VI
RAW COAL MOISTURE: 9.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.4	54.3	13551	5.2	.67	2.14	3.2
FLOAT-1.40	77.5	86.5	13194	7.7	.88	2.33	3.5
FLOAT-1.60	86.0	94.2	12952	9.4	1.09	2.52	3.9
TOTAL	100.0	100.0	11825	17.3	2.01	3.39	5.7
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.1	52.2	13650	4.5	.60	1.95	2.9
FLOAT-1.40	75.7	85.5	13322	6.8	.81	2.18	3.3
FLOAT-1.60	84.7	93.9	13080	8.5	.97	2.35	3.6
TOTAL	100.0	100.0	11796	17.5	2.05	3.36	5.7
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.0	30.5	13864	3.0	.48	1.79	2.6
FLOAT-1.40	69.5	79.0	13422	6.1	.71	2.04	3.0
FLOAT-1.60	86.0	94.3	12952	9.4	1.01	2.39	3.7
TOTAL	100.0	100.0	11811	17.4	2.10	3.38	5.7
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

STATE: INDIANA
COUNTY: VERMILLION

COALBED: NO. VI
RAW COAL MOISTURE: 8.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.9	46.3	13575	4.3	.84	2.10	3.2
FLOAT-1.40	63.7	71.3	13111	7.6	1.0[illegible]	2.32	3.5
FLOAT-1.60	89.2	93.4	12255	13.7	1.27	2.51	4.1
TOTAL	100.0	100.0	11707	17.6	2.32	3.58	6.1
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.0	46.7	13659	3.7	.63	2.02	3.0
FLOAT-1.40	64.8	73.4	13238	6.7	.85	2.20	3.3
FLOAT-1.60	84.1	90.6	12592	11.3	1.07	2.36	3.7
TOTAL	100.0	100.0	11693	17.7	2.25	3.57	6.1
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.8	32.7	13757	3.0	.54	1.91	2.8
FLOAT-1.40	53.5	62.2	13603	4.1	.60	2.02	3.0
FLOAT-1.60	77.9	86.4	12985	8.5	.94	2.28	3.5
TOTAL	100.0	100.0	11707	17.6	2.32	3.55	6.1
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

STATE: INDIANA
COUNTY: WARRICK

COALBED: NO. VI
RAW COAL MOISTURE: 7.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.2	37.9	13480	4.7	1.28	2.66	3.9
FLOAT-1.40	80.4	83.8	13055	7.6	1.88	3.25	5.0
FLOAT-1.60	96.1	97.8	12747	9.7	2.21	3.60	5.6
TOTAL	100.0	100.0	12528	11.2	2.38	3.75	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.4	38.4	13554	4.2	1.11	2.55	3.8
FLOAT-1.40	74.7	79.0	13216	6.5	1.69	3.13	4.7
FLOAT-1.60	93.7	96.3	12850	9.0	2.05	3.47	5.4
TOTAL	100.0	100.0	12498	11.4	2.35	3.75	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.8	18.4	13700	3.2	.73	2.17	3.2
FLOAT-1.40	72.9	77.8	13363	5.5	1.38	2.82	4.2
FLOAT-1.60	92.5	95.5	12938	8.4	1.83	3.18	4.9
TOTAL	100.0	100.0	12528	11.2	2.32	3.69	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: WARRICK

COALBED: NO. VI
RAW COAL MOISTURE: 7.0 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.1	67.5	13349	4.8	.97	2.86	4.3
FLOAT-1.40	83.9	89.5	13111	6.5	1.34	3.22	4.9
FLOAT-1.60	91.0	96.1	12972	7.5	1.58	3.44	5.3
TOTAL	100.0	100.0	12286	12.4	2.32	4.07	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.0	58.7	13545	3.4	.80	2.70	4.0
FLOAT-1.40	80.6	87.2	13237	5.6	1.18	3.08	4.7
FLOAT-1.60	89.4	95.3	13041	7.0	1.43	3.31	5.1
TOTAL	100.0	100.0	12231	12.8	2.27	4.02	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.2	53.0	13503	3.7	.89	2.81	4.2
FLOAT-1.40	69.7	76.2	13433	4.2	.92	2.83	4.2
FLOAT-1.60	87.9	94.0	13139	6.3	1.29	3.15	4.8
TOTAL	100.0	100.0	12286	12.4	2.24	3.99	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: WARRICK

COALBED: NO. VI
RAW COAL MOISTURE: 7.6 %

BENCH: BOTTOM

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.0	38.6	13362	4.1	.48	1.87	2.8
FLOAT-1.40	77.0	82.3	12938	7.2	.95	2.54	3.9
FLOAT-1.60	90.0	94.5	12705	8.9	1.28	2.92	4.6
TOTAL	100.0	100.0	12103	13.3	2.98	4.52	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.2	44.8	13485	3.2	.49	2.00	3.0
FLOAT-1.40	74.4	80.8	13129	5.8	.88	2.47	3.8
FLOAT-1.60	88.0	93.6	12856	7.8	1.22	2.80	4.4
TOTAL	100.0	100.0	12089	13.4	3.02	4.47	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.2	37.4	13622	2.2	.38	1.95	2.9
FLOAT-1.40	67.3	74.3	13348	4.2	.70	2.33	3.5
FLOAT-1.60	85.9	92.1	12965	7.0	1.17	2.75	4.2
TOTAL	100.0	100.0	12089	13.4	2.98	4.46	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: GIBSON

COALBED: NO. V
RAW COAL MOISTURE: 6.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.8	78.2	13855	3.7	.35	1.08	1.6
FLOAT-1.40	94.9	96.4	13644	5.1	.61	1.37	2.0
FLOAT-1.60	97.5	98.7	13598	5.4	.69	1.45	2.1
TOTAL	100.0	100.0	13432	6.5	1.19	1.93	2.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	76.1	78.7	13900	3.4	.36	1.17	1.7
FLOAT-1.40	93.7	95.6	13719	4.6	.55	1.37	2.0
FLOAT-1.60	97.3	98.7	13644	5.1	.62	1.44	2.1
TOTAL	100.0	100.0	13447	6.4	1.13	1.93	2.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.1	35.7	14097	2.1	.29	1.12	1.6
FLOAT-1.40	90.3	92.9	13870	3.6	.44	1.27	1.8
FLOAT-1.60	96.6	98.4	13734	4.5	.50	1.31	1.9
TOTAL	100.0	100.0	13477	6.2	1.14	1.94	2.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: GREENE

COALBED: NO. V
RAW COAL MOISTURE: 8.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.8	41.4	13715	4.9	.64	2.34	3.4
FLOAT-1.40	87.2	90.3	13294	7.8	.94	2.67	4.0
FLOAT-1.60	95.4	97.6	13134	8.9	1.19	2.86	4.4
TOTAL	100.0	100.0	12843	10.9	1.86	3.52	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.7	47.9	13831	4.1	.55	2.32	3.4
FLOAT-1.40	85.1	88.5	13410	7.0	.77	2.50	3.7
FLOAT-1.60	95.1	97.3	13206	8.4	1.03	2.71	4.1
TOTAL	100.0	100.0	12901	10.5	1.64	3.29	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.2	30.7	13991	3.0	.52	2.25	3.2
FLOAT-1.40	70.4	74.4	13599	5.7	.71	2.44	3.6
FLOAT-1.60	94.1	96.6	13221	8.3	1.12	2.82	4.3
TOTAL	100.0	100.0	12872	10.7	1.83	3.52	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: PIKE

COALBED: NO. V
RAW COAL MOISTURE: 3.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.8	73.0	13596	5.1	.45	2.68	3.9
FLOAT-1.40	92.8	94.1	13379	6.5	.62	2.81	4.2
FLOAT-1.60	98.5	99.1	13271	7.2	.78	2.93	4.4
TOTAL	100.0	100.0	13194	7.7	.97	3.09	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	74.8	77.2	13596	5.1	.50	2.82	4.1
FLOAT-1.40	92.2	93.8	13410	6.3	.59	2.88	4.3
FLOAT-1.60	98.0	98.8	13287	7.1	.70	2.98	4.5
TOTAL	100.0	100.0	13178	7.8	.94	3.20	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.6	74.2	13673	4.6	.54	2.80	4.1
FLOAT-1.40	90.4	92.5	13503	5.7	.49	2.77	4.1
FLOAT-1.60	97.1	98.1	13333	6.8	.60	3.03	4.5
TOTAL	100.0	100.0	13194	7.7	.90	3.26	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: PIKE

COALBED: NO. V
RAW COAL MOISTURE: 4.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.9	63.9	13392	5.9	.81	2.92	4.4
FLOAT-1.40	92.5	93.7	13148	7.5	1.06	3.12	4.7
FLOAT-1.60	98.5	99.0	13041	8.2	1.26	3.31	5.1
TOTAL	100.0	100.0	12980	8.6	1.49	3.51	5.4
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.9	63.4	13499	5.2	.88	2.69	4.0
FLOAT-1.40	86.4	88.5	13285	6.6	1.00	2.73	4.1
FLOAT-1.60	97.8	98.7	13087	7.9	1.19	2.89	4.4
TOTAL	100.0	100.0	12965	8.7	1.48	3.18	4.9
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.8	37.9	13697	3.9	.53	2.46	3.6
FLOAT-1.40	87.0	89.8	13362	6.1	.74	2.82	4.2
FLOAT-1.60	97.0	98.5	13148	7.5	.93	2.91	4.4
TOTAL	100.0	100.0	12950	8.8	1.33	3.44	5.3
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

STATE: INDIANA
COUNTY: PIKE

COALBED: NO. V
RAW COAL MOISTURE: 9.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.2	45.8	13581	5.0	.88	2.58	3.8
FLOAT-1.40	89.7	92.5	13210	7.6	1.19	2.85	4.3
FLOAT-1.60	95.3	97.4	13096	8.4	1.33	2.99	4.6
TOTAL	100.0	100.0	12811	10.4	2.41	4.07	6.4
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.1	50.1	13709	4.1	.76	2.51	3.7
FLOAT-1.40	87.1	90.3	13367	6.5	1.01	2.75	4.1
FLOAT-1.60	95.0	97.4	13224	7.5	1.17	2.88	4.4
TOTAL	100.0	100.0	12897	9.8	2.21	3.92	6.1
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.3	33.9	13923	2.6	.32	2.20	3.2
FLOAT-1.40	79.2	83.2	13524	5.4	.78	2.48	3.7
FLOAT-1.60	93.4	96.4	13281	7.1	.93	2.64	4.0
TOTAL	100.0	100.0	12868	10.0	2.20	3.85	6.0
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

STATE: INDIANA
COUNTY: PIKE

COALBED: NO. V
RAW COAL MOISTURE: 5.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.1	65.5	13482	4.9	.67	2.56	3.8
FLOAT-1.40	88.8	92.0	13242	6.6	.87	2.63	4.0
FLOAT-1.60	92.8	95.6	13158	7.2	.95	2.72	4.1
TOTAL	100.0	100.0	12776	9.9	2.89	4.53	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.9	57.6	13638	3.8	.49	2.50	3.7
FLOAT-1.40	86.3	90.1	13327	6.0	.68	2.58	3.9
FLOAT-1.60	92.9	96.0	13186	7.0	.81	2.65	4.0
TOTAL	100.0	100.0	12762	10.0	2.84	4.56	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.6	45.9	13793	2.7	.41	2.38	3.5
FLOAT-1.40	78.9	83.1	13482	4.9	.61	2.50	3.7
FLOAT-1.60	92.6	95.9	13256	6.5	.75	2.55	3.8
TOTAL	100.0	100.0	12804	9.7	2.77	4.43	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: SULLIVAN

COALBED: NO. V
RAW COAL MOISTURE: 6.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.0	31.8	13641	5.4	.58	2.36	3.5
FLOAT-1.40	61.1	70.4	13324	7.6	1.14	3.00	4.5
FLOAT-1.60	81.9	91.7	12949	10.2	1.99	3.87	6.0
FLOAT-1.90	86.2	95.2	12776	11.4	2.41	4.31	6.7
TOTAL	100.0	100.0	11564	19.8	3.89	5.64	9.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.0	28.4	13829	4.1	.53	2.29	3.3
FLOAT-1.40	60.8	70.8	13598	5.7	.84	2.59	3.8
FLOAT-1.60	80.6	91.3	13237	8.2	1.40	3.23	4.9
FLOAT-1.90	84.8	94.9	13064	9.4	1.79	3.64	5.6
TOTAL	100.0	100.0	11680	19.0	3.67	5.43	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	21.8	26.2	13901	3.6	.45	2.21	3.2
FLOAT-1.40	60.9	71.0	13468	6.6	.75	2.49	3.7
FLOAT-1.60	80.4	90.5	13007	9.8	1.32	3.12	4.8
FLOAT-1.90	85.2	94.6	12819	11.1	1.64	3.45	5.4
TOTAL	100.0	100.0	11550	19.9	3.94	5.75	10.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: WARRICK

COALBED: NO. V
RAW COAL MOISTURE: 7.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.0	39.6	13306	5.1	.67	2.79	4.2
FLOAT-1.40	81.3	85.0	12984	7.4	1.15	3.31	5.1
FLOAT-1.60	92.2	95.0	12801	8.7	1.71	3.90	6.1
TOTAL	100.0	100.0	12422	11.4	2.40	4.47	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.4	40.4	13447	4.1	.62	2.65	3.9
FLOAT-1.40	79.8	84.0	13096	6.6	1.10	3.16	4.8
FLOAT-1.60	91.1	94.5	12900	8.0	1.59	3.66	5.7
TOTAL	100.0	100.0	12436	11.3	2.61	4.57	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.3	33.3	13601	3.0	.51	2.71	4.0
FLOAT-1.40	73.0	77.6	13180	6.0	.99	3.16	4.8
FLOAT-1.60	88.9	92.7	12928	7.8	1.40	3.57	5.5
TOTAL	100.0	100.0	12394	11.6	2.40	4.64	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: CLAY

COALBED: NO. III
RAW COAL MOISTURE: 4.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.5	51.0	13406	4.7	.79	3.77	5.6
FLOAT-1.40	77.2	81.2	13137	6.6	1.18	4.13	6.3
FLOAT-1.60	95.0	97.0	12755	9.3	1.49	4.33	6.8
TOTAL	100.0	100.0	12486	11.2	1.65	4.47	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.1	58.0	13391	4.8	.81	3.85	5.7
FLOAT-1.40	77.4	82.0	13222	6.0	1.06	4.06	6.1
FLOAT-1.60	93.0	96.0	12882	8.4	1.32	4.21	6.5
TOTAL	100.0	100.0	12486	11.2	1.62	4.47	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.4	35.9	13462	4.3	.56	3.33	4.9
FLOAT-1.40	79.0	83.6	13250	5.8	.86	3.74	5.6
FLOAT-1.60	91.8	95.0	12953	7.9	1.14	3.93	6.1
TOTAL	100.0	100.0	12514	11.0	1.59	4.29	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: GREENE

COALBED: NO. III
RAW COAL MOISTURE: 7.2 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.5	60.6	13579	4.8	1.64	3.32	4.9
FLOAT-1.40	85.5	90.3	13381	6.2	2.25	3.97	5.9
FLOAT-1.60	90.7	95.1	13281	6.9	2.55	4.30	6.5
TOTAL	100.0	100.0	12671	11.2	4.48	6.13	9.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.2	62.8	13665	4.2	1.30	2.92	4.3
FLOAT-1.40	82.9	88.3	13480	5.5	1.82	3.50	5.2
FLOAT-1.60	89.6	94.6	13367	6.3	2.17	3.87	5.8
TOTAL	100.0	100.0	12657	11.3	4.55	6.08	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.5	44.3	13764	3.5	.88	2.60	3.8
FLOAT-1.40	75.6	81.6	13565	4.9	1.48	3.18	4.7
FLOAT-1.60	84.9	90.6	13409	6.0	1.91	3.57	5.3
TOTAL	100.0	100.0	12572	11.9	4.76	6.33	10.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: INDIANA
COUNTY: GREENE

COALBED: NO. III
RAW COAL MOISTURE: 6.2 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.0	50.7	13374	5.7	1.33	3.16	4.7
FLOAT-1.40	77.0	83.2	13106	7.6	1.86	3.77	5.8
FLOAT-1.60	87.5	92.9	12880	9.2	2.26	4.17	6.5
TOTAL	100.0	100.0	12132	14.5	5.43	7.14	11.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.0	50.1	13530	4.6	1.12	3.10	4.6
FLOAT-1.40	75.4	82.1	13219	6.8	1.58	3.53	5.3
FLOAT-1.60	84.9	91.2	13050	8.0	1.89	3.84	5.9
TOTAL	100.0	100.0	12146	14.4	5.40	7.14	11.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.5	36.5	13572	4.3	1.00	2.99	4.4
FLOAT-1.40	63.0	69.9	13417	5.4	1.28	3.25	4.8
FLOAT-1.60	82.9	89.6	13064	7.9	1.74	3.63	5.6
TOTAL	100.0	100.0	12090	14.8	5.56	7.23	12.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: WAPELLO

COALBED: LUCAS COUNTY NO. 5
RAW COAL MOISTURE: 8.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.9	34.1	12770	7.5	.96	4.51	7.1
FLOAT-1.40	59.8	67.8	12289	11.0	1.17	4.58	7.5
FLOAT-1.60	80.7	87.8	11781	14.7	1.57	4.81	8.2
TOTAL	100.0	100.0	10833	21.6	5.16	7.96	14.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.6	28.2	13003	5.8	.84	4.44	6.8
FLOAT-1.40	57.0	65.9	12564	9.0	.99	4.50	7.2
FLOAT-1.60	79.7	87.7	11959	13.4	1.31	4.62	7.7
TOTAL	100.0	100.0	10874	21.3	4.91	7.76	14.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.6	20.2	13223	4.2	.74	4.41	6.7
FLOAT-1.40	51.0	59.9	12756	7.6	.83	4.43	6.9
FLOAT-1.60	77.2	86.7	12193	11.7	1.08	4.49	7.4
TOTAL	100.0	100.0	10860	21.4	5.01	7.80	14.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MARION

COALBED: LOWER COAL-FORD COAL
RAW COAL MOISTURE: 3.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.4	41.0	12197	9.1	2.84	4.81	7.9
FLOAT-1.40	53.9	63.2	12018	10.4	3.66	5.58	9.3
FLOAT-1.60	66.7	76.8	11798	12.0	4.43	6.31	10.7
TOTAL	100.0	100.0	10242	23.3	10.23	12.08	23.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.8	19.7	12707	5.4	1.92	4.03	6.3
FLOAT-1.40	47.9	57.8	12335	8.1	2.69	4.71	7.6
FLOAT-1.60	65.6	77.5	12073	10.0	3.66	5.68	9.4
TOTAL	100.0	100.0	10214	23.5	10.40	12.02	23.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.3	9.2	12941	3.7	1.69	3.79	5.9
FLOAT-1.40	44.8	55.9	12734	5.2	2.03	3.89	6.1
FLOAT-1.60	67.4	80.8	12252	8.7	3.47	5.43	8.9
TOTAL	100.0	100.0	10214	23.5	10.55	12.24	24.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MARION

COALBED: LOWER COAL-FORD COAL
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.2	78.4	13057	6.6	.92	1.87	2.9
FLOAT-1.40	90.0	92.9	12931	7.5	1.17	2.15	3.3
FLOAT-1.60	94.3	96.8	12861	8.0	1.37	2.38	3.7
FLOAT-1.90	96.0	98.1	12806	8.4	1.55	2.57	4.0
TOTAL	100.0	100.0	12526	10.4	2.24	3.28	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	77.6	81.5	13239	5.3	.72	1.70	2.6
FLOAT-1.40	89.4	93.2	13141	6.0	.95	1.93	2.9
FLOAT-1.60	92.5	96.0	13085	6.4	1.10	2.10	3.2
FLOAT-1.90	94.1	97.1	13015	6.9	1.24	2.25	3.5
TOTAL	100.0	100.0	12610	9.8	2.21	3.21	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.9	60.4	13421	4.0	.61	1.63	2.4
FLOAT-1.40	82.6	87.7	13197	5.6	.95	1.98	3.0
FLOAT-1.60	90.0	94.8	13085	6.4	1.19	2.25	3.4
FLOAT-1.90	91.8	96.2	13029	6.8	1.32	2.39	3.7
TOTAL	100.0	100.0	12428	11.1	2.63	3.70	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MARION

COALBED: LOWER COAL-FORD COAL
RAW COAL MOISTURE: 11.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.9	50.5	12610	7.1	1.44	2.97	4.7
FLOAT-1.40	69.7	75.4	12395	8.7	1.92	3.61	5.8
FLOAT-1.60	86.2	91.6	12166	10.4	2.63	4.44	7.3
TOTAL	100.0	100.0	11452	15.7	5.00	6.71	11.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.8	43.5	12907	4.9	1.07	2.56	4.0
FLOAT-1.40	69.5	76.4	12651	6.8	1.58	3.25	5.1
FLOAT-1.60	83.8	90.6	12435	8.4	2.20	3.97	6.4
TOTAL	100.0	100.0	11506	15.3	4.98	6.60	11.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.5	38.3	13068	3.7	.95	2.61	4.0
FLOAT-1.40	56.3	63.5	12880	5.1	1.28	3.01	4.7
FLOAT-1.60	79.4	87.4	12584	7.3	1.91	3.70	5.9
TOTAL	100.0	100.0	11425	15.9	4.94	6.70	11.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MARION

COALBED: LOWER COAL-FORD COAL
RAW COAL MOISTURE: 13.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.6	44.8	13280	4.8	1.60	2.79	4.2
FLOAT-1.40	80.0	88.2	12946	7.2	1.72	3.31	5.1
FLOAT-1.60	84.9	92.8	12834	8.0	1.96	3.50	5.5
FLOAT-1.90	87.3	94.8	12750	8.6	2.14	3.65	5.7
TOTAL	100.0	100.0	11746	15.8	4.94	6.29	10.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.9	42.8	13420	3.8	1.54	2.54	3.8
FLOAT-1.40	73.4	81.3	13169	5.6	2.04	3.04	4.6
FLOAT-1.60	82.3	89.8	12974	7.0	2.27	3.28	5.1
FLOAT-1.90	86.0	93.3	12890	7.6	2.41	3.41	5.3
TOTAL	100.0	100.0	11886	14.8	5.32	6.20	10.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.2	53.1	13099	6.1	1.97	3.27	5.0
FLOAT-1.40	80.7	87.8	12932	7.3	2.32	3.57	5.5
FLOAT-1.60	88.0	94.8	12806	8.2	2.60	3.81	6.0
FLOAT-1.90	90.0	96.3	12722	8.8	2.72	3.91	6.1
TOTAL	100.0	100.0	11886	14.8	4.93	6.04	10.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MONROE

COALBED: LOWER COAL-FORD COAI
RAW COAL MOISTURE: 7.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.9	59.2	12596	7.1	.98	2.32	3.7
FLOAT-1.40	74.3	79.4	12488	7.9	1.15	2.64	4.2
FLOAT-1.60	88.4	92.8	12260	9.6	1.57	3.17	5.2
TOTAL	100.0	100.0	11683	13.9	3.62	5.33	9.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.3	56.7	12864	5.1	.85	2.23	3.5
FLOAT-1.40	72.9	79.5	12689	6.4	1.00	2.46	3.9
FLOAT-1.60	85.0	91.4	12502	7.8	1.33	2.90	4.6
TOTAL	100.0	100.0	11630	14.3	4.16	5.78	9.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.5	4.0	13159	2.9	.21	1.97	3.0
FLOAT-1.40	70.9	79.0	12904	4.8	.64	2.10	3.3
FLOAT-1.60	84.3	91.4	12555	7.4	1.08	2.56	4.1
TOTAL	100.0	100.0	11576	14.7	4.04	5.60	9.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MONROE

COALBED: LOWER COAL-FORD COAL
RAW COAL MOISTURE: 11.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.1	69.4	12831	8.4	1.45	2.22	3.5
FLOAT-1.40	78.4	84.4	12762	8.9	1.64	2.45	3.8
FLOAT-1.60	87.0	92.6	12622	9.9	2.09	2.91	4.6
TOTAL	100.0	100.0	11855	15.4	4.32	5.23	8.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.5	57.1	13194	5.8	1.14	1.96	3.0
FLOAT-1.40	77.7	84.9	12999	7.2	1.28	2.12	3.3
FLOAT-1.60	85.7	92.6	12859	8.2	1.66	2.50	3.9
TOTAL	100.0	100.0	11897	15.1	4.59	5.31	8.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.2	41.8	13292	5.1	.99	1.94	2.9
FLOAT-1.40	70.0	77.4	13083	6.6	1.28	2.21	3.4
FLOAT-1.60	84.2	91.5	12859	8.2	1.60	2.48	3.9
TOTAL	100.0	100.0	11827	15.6	4.60	5.35	9.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MAHASKA

COALBED: CLIFFLAND
RAW COAL MOISTURE: 5.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.0	67.3	13104	6.1	1.46	6.14	9.4
FLOAT-1.40	71.6	79.5	12966	7.1	1.64	6.22	9.6
FLOAT-1.60	84.5	91.5	12647	9.4	1.98	6.39	10.1
TOTAL	100.0	100.0	11678	16.4	3.50	7.52	12.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.0	54.7	13395	4.0	1.16	5.87	8.8
FLOAT-1.40	70.2	78.6	13160	5.7	1.36	5.93	9.0
FLOAT-1.60	82.2	90.1	12883	7.7	1.61	6.03	9.4
TOTAL	100.0	100.0	11747	15.9	3.54	7.46	12.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.2	39.8	13589	2.6	.86	5.55	8.2
FLOAT-1.40	61.9	70.5	13298	4.7	1.15	5.63	8.5
FLOAT-1.60	80.1	88.7	12938	7.3	1.47	5.77	8.9
TOTAL	100.0	100.0	11678	16.4	3.82	7.44	12.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

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STATE:     IOWA                                                    COALBED: HASTIE
COUNTY:    MAHASKA                                                 RAW COAL MOISTURE:  7.3 %
                                                  CUMULATIVE WASHABILITY DATA

                                               SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT                RECOVERY,%        BTU/LB       ASH,%        SULFUR,%             LB SO2/M BTU
                     WEIGHT     BTU                             PYRITIC     TOTAL
FLOAT-1.30            47.1     53.9      13036         5.4        1.35       4.63             7.1
FLOAT-1.40            71.2     78.9      12622         7.8        1.83       5.03             8.0
FLOAT-1.60            84.8     91.4      12276         9.8        2.46       5.64             9.2
TOTAL                100.0    100.0      11395        14.9        4.79       8.05            14.1

EPA STANDARD         *****    *****      *****       *****       *****      *****             1.20

                                               SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT                RECOVERY,%        BTU/LB       ASH,%        SULFUR,%             LB SO2/M BTU
                     WEIGHT     BTU                             PYRITIC     TOTAL
FLOAT-1.30            42.3     49.0      13244         4.2        1.11       4.29             6.5
FLOAT-1.40            67.3     75.8      12881         6.3        1.51       4.64             7.2
FLOAT-1.60            83.4     91.2      12501         8.5        2.15       5.28             8.4
TOTAL                100.0    100.0      11429        14.7        4.68       7.90            13.8

EPA STANDARD         *****    *****      *****       *****       *****      *****             1.20

                                               SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT                RECOVERY,%        BTU/LB       ASH,%        SULFUR,%             LB SO2/M BTU
                     WEIGHT     BTU                             PYRITIC     TOTAL
FLOAT-1.30            32.5     38.4      13485         2.8         .89       4.19             6.2
FLOAT-1.40            62.2     71.1      13053         5.3        1.42       4.59             7.0
FLOAT-1.60            82.4     90.9      12587         8.0        2.17       5.25             8.3
TOTAL                100.0    100.0      11412        14.8        5.08       8.20            14.4

EPA STANDARD         *****    *****      *****       *****       *****      *****             1.20

STATE:     IOWA                                                    COALBED: HASTIE
COUNTY:    MONROE                                                  RAW COAL MOISTURE:  4.8 %
                                                  CUMULATIVE WASHABILITY DATA

                                               SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT                RECOVERY,%        BTU/LB       ASH,%        SULFUR,%             LB SO2/M BTU
                     WEIGHT     BTU                             PYRITIC     TOTAL
FLOAT-1.30            61.0     67.9      13225         5.3         .79       4.00             6.0
FLOAT-1.40            79.0     86.2      12977         7.1         .87       4.01             6.2
FLOAT-1.60            88.5     94.6      12701         9.1         .94       4.03             6.3
TOTAL                100.0    100.0      11887        15.0        2.80       5.74             9.7

EPA STANDARD         *****    *****      *****       *****       *****      *****             1.20

                                               SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT                RECOVERY,%        BTU/LB       ASH,%        SULFUR,%             LB SO2/M BTU
                     WEIGHT     BTU                             PYRITIC     TOTAL
FLOAT-1.30            55.7     62.2      13377         4.2         .62       4.00             6.0
FLOAT-1.40            78.3     86.1      13156         5.8         .72       4.02             6.1
FLOAT-1.60            88.1     94.7      12866         7.9         .80       4.03             6.3
TOTAL                100.0    100.0      11970        14.4        2.92       5.94             9.9

EPA STANDARD         *****    *****      *****       *****       *****      *****             1.20

                                               SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT                RECOVERY,%        BTU/LB       ASH,%        SULFUR,%             LB SO2/M BTU
                     WEIGHT     BTU                             PYRITIC     TOTAL
FLOAT-1.30            40.9     46.5      13432         3.8         .63       4.02             6.0
FLOAT-1.40            68.8     76.9      13197         5.5         .71       4.05             6.1
FLOAT-1.60            84.7     92.4      12880         7.8         .81       4.08             6.3
TOTAL                100.0    100.0      11804        15.6        3.08       5.84             9.9

EPA STANDARD         *****    *****      *****       *****       *****      *****             1.20
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STATE: IOWA
COUNTY: LUCAS

COALBED: UNCORRELATED
RAW COAL MOISTURE: 12.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.1	55.5	13010	6.5	1.27	2.85	4.4
FLOAT-1.40	71.5	77.5	12735	8.5	1.76	3.30	5.2
FLOAT-1.60	91.2	94.6	12186	12.5	2.19	3.64	6.0
TOTAL	100.0	100.0	11746	15.7	2.83	4.18	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.5	47.9	13312	4.3	.83	2.20	3.3
FLOAT-1.40	69.9	76.7	12968	6.8	1.46	2.84	4.4
FLOAT-1.60	87.8	92.7	12474	10.4	1.85	3.21	5.1
TOTAL	100.0	100.0	11815	15.2	2.76	4.04	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.6	35.1	13477	3.1	.51	1.82	2.7
FLOAT-1.40	65.2	72.5	13078	6.0	1.21	2.59	4.0
FLOAT-1.60	83.1	89.7	12694	8.8	1.74	3.10	4.9
TOTAL	100.0	100.0	11760	15.6	2.92	4.18	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MAHASKA

COALBED: UNCORRELATED
RAW COAL MOISTURE: 7.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	81.3	83.6	13632	4.2	.50	1.22	1.8
FLOAT-1.40	93.6	95.6	13546	4.8	.55	1.27	1.9
FLOAT-1.60	96.0	97.9	13517	5.0	.67	1.42	2.1
TOTAL	100.0	100.0	13259	6.8	1.66	2.45	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	69.7	72.5	13761	3.3	.30	1.10	1.6
FLOAT-1.40	90.9	93.8	13646	4.1	.32	1.09	1.6
FLOAT-1.60	95.1	97.6	13574	4.6	.41	1.18	1.7
TOTAL	100.0	100.0	13230	7.0	1.73	2.51	3.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.9	9.5	14076	1.1	.05	.87	1.2
FLOAT-1.40	89.2	92.9	13746	3.4	.18	.94	1.4
FLOAT-1.60	94.4	97.3	13603	4.4	.21	1.00	1.5
TOTAL	100.0	100.0	13202	7.2	1.80	2.63	4.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MAHASKA

COALBED: UNCORRELATED
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.2	52.9	12746	7.3	1.53	4.82	7.6
FLOAT-1.40	75.7	81.4	12499	9.1	1.82	4.98	8.0
FLOAT-1.60	88.4	93.5	12293	10.6	2.28	5.35	8.7
FLOAT-1.90	92.4	96.7	12155	11.6	2.53	5.56	9.1
TOTAL	100.0	100.0	11619	15.5	3.33	6.22	10.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.7	58.0	13145	4.4	1.01	4.37	6.6
FLOAT-1.40	76.2	83.5	12843	6.6	1.30	4.60	7.2
FLOAT-1.60	84.8	91.7	12664	7.9	1.62	4.87	7.7
FLOAT-1.90	88.4	94.5	12526	8.9	1.84	5.02	8.0
TOTAL	100.0	100.0	11715	14.8	3.29	6.21	10.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.7	46.4	13283	3.4	.86	4.28	6.4
FLOAT-1.40	69.8	77.6	12966	5.7	1.14	4.50	6.9
FLOAT-1.60	82.5	90.0	12719	7.5	1.43	4.70	7.4
FLOAT-1.90	86.4	93.2	12581	8.5	1.61	4.81	7.6
TOTAL	100.0	100.0	11660	15.2	3.42	6.27	10.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MAHASKA

COALBED: UNCORRELATED
RAW COAL MOISTURE: 4.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.0	55.9	12823	7.8	2.08	4.92	7.7
FLOAT-1.40	57.2	64.9	12753	8.3	2.25	5.08	8.0
FLOAT-1.60	76.4	84.0	12363	11.1	3.57	6.29	10.2
TOTAL	100.0	100.0	11248	19.1	7.82	10.35	18.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.0	45.7	13130	5.6	1.56	4.66	7.1
FLOAT-1.40	56.0	64.9	12991	6.6	1.75	4.74	7.3
FLOAT-1.60	74.9	84.2	12600	9.4	2.82	5.72	9.1
TOTAL	100.0	100.0	11206	19.4	8.01	10.31	18.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.5	24.8	13576	2.4	1.02	4.37	6.4
FLOAT-1.40	50.8	59.8	13228	4.9	1.49	4.51	6.8
FLOAT-1.60	72.8	82.8	12781	8.1	2.38	5.24	8.2
TOTAL	100.0	100.0	11234	19.2	7.77	10.38	18.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MAHASKA

COALBED: UNCORRELATED
RAW COAL MOISTURE: 8.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.5	63.2	13398	5.1	1.46	4.90	7.3
FLOAT-1.40	80.3	85.3	13162	6.8	1.79	5.15	7.8
FLOAT-1.60	91.1	94.9	12912	8.6	2.22	5.52	8.6
TOTAL	100.0	100.0	12397	12.3	3.03	6.19	10.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.3	57.9	13565	3.9	1.30	4.75	7.0
FLOAT-1.40	79.3	84.4	13301	5.8	1.61	4.95	7.4
FLOAT-1.60	89.9	94.1	13079	7.4	1.96	5.27	8.1
TOTAL	100.0	100.0	12495	11.6	3.05	6.19	9.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.2	48.9	13718	2.8	.91	4.42	6.4
FLOAT-1.40	69.5	75.6	13496	4.4	1.19	4.59	6.8
FLOAT-1.60	86.9	92.5	13218	6.4	1.57	4.88	7.4
TOTAL	100.0	100.0	12411	12.2	3.11	6.14	9.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MARION

COALBED: UNCORRELATED
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.7	29.8	12781	8.0	2.73	6.40	10.0
FLOAT-1.40	49.2	60.1	12420	10.6	3.21	6.76	10.9
FLOAT-1.60	73.1	84.6	11769	15.3	3.85	7.20	12.2
TOTAL	100.0	100.0	10174	26.8	7.45	10.43	20.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.3	22.0	13044	6.1	1.96	5.92	9.1
FLOAT-1.40	41.0	51.1	12794	7.9	2.39	6.17	9.6
FLOAT-1.60	68.1	80.3	12101	12.9	3.35	6.86	11.3
TOTAL	100.0	100.0	10258	26.2	7.00	10.20	19.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.1	9.3	13141	5.4	1.27	4.69	7.1
FLOAT-1.40	34.1	44.2	13058	6.0	1.70	5.54	8.5
FLOAT-1.60	60.1	73.9	12379	10.9	2.56	6.13	9.9
TOTAL	100.0	100.0	10064	27.6	7.55	10.52	20.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: IOWA
COUNTY: MARION

COALBED: UNCORRELATED
RAW COAL MOISTURE: 12.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.8	51.1	12368	9.3	1.44	3.61	5.8
FLOAT-1.40	72.8	78.5	12206	10.5	1.78	3.99	6.5
FLOAT-1.60	86.1	91.2	11991	12.1	2.28	4.47	7.5
TOTAL	100.0	100.0	11318	17.1	4.71	6.69	11.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.1	46.7	12623	7.4	1.10	3.48	5.5
FLOAT-1.40	72.7	79.3	12422	8.9	1.41	3.79	6.1
FLOAT-1.60	83.9	90.1	12233	10.3	1.80	4.17	6.8
TOTAL	100.0	100.0	11385	16.6	4.51	6.75	11.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.1	37.5	12812	6.0	.95	3.25	5.1
FLOAT-1.40	64.1	71.2	12556	7.9	1.30	3.61	5.8
FLOAT-1.60	80.2	87.6	12354	9.4	1.67	3.95	6.4
TOTAL	100.0	100.0	11305	17.2	4.56	6.74	11.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KANSAS
COUNTY: CRAWFORD

COALBED: BEVIER
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.3	26.9	13693	6.0	1.05	2.48	3.6
FLOAT-1.40	55.1	70.7	13256	9.0	1.61	2.99	4.5
FLOAT-1.60	70.6	87.5	12804	12.1	2.18	3.53	5.5
FLOAT-1.90	77.6	93.3	12411	14.8	2.51	3.83	6.2
TOTAL	100.0	100.0	10328	29.1	3.59	4.72	9.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.6	22.0	13810	5.2	.97	2.33	3.4
FLOAT-1.40	52.0	66.9	13373	8.2	1.56	2.90	4.3
FLOAT-1.60	66.9	83.0	12906	11.4	2.06	3.35	5.2
FLOAT-1.90	74.6	89.4	12469	14.4	2.37	3.62	5.8
TOTAL	100.0	100.0	10401	28.6	3.30	4.35	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.2	19.3	13897	4.6	.71	2.17	3.1
FLOAT-1.40	51.1	67.2	13445	7.7	1.25	2.70	4.0
FLOAT-1.60	63.3	80.1	12936	11.2	1.69	3.07	4.7
FLOAT-1.90	71.8	87.1	12411	14.8	2.05	3.38	5.4
TOTAL	100.0	100.0	10226	29.8	3.63	4.74	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KANSAS
COUNTY: CRAWFORD
COALBED: CROWEBURG
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.0	24.4	13705	6.0	1.12	2.55	3.7
FLOAT-1.40	48.6	67.4	13268	9.0	1.71	3.09	4.7
FLOAT-1.60	64.8	85.9	12685	13.0	2.25	3.60	5.7
FLOAT-1.90	72.2	92.5	12247	16.0	2.63	3.93	6.4
TOTAL	100.0	100.0	9565	34.4	3.23	4.24	8.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.5	40.7	13793	5.4	1.08	2.44	3.5
FLOAT-1.40	48.6	67.9	13487	7.5	1.44	2.76	4.1
FLOAT-1.60	64.3	85.9	12889	11.6	2.00	3.30	5.1
FLOAT-1.90	71.4	92.2	12466	14.5	2.37	3.66	5.9
TOTAL	100.0	100.0	9652	33.8	3.14	4.15	8.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.4	15.3	13866	4.9	.84	2.11	3.0
FLOAT-1.40	41.3	59.0	13487	7.5	1.29	2.51	3.7
FLOAT-1.60	59.9	81.6	12845	11.9	1.82	3.03	4.7
FLOAT-1.90	69.6	90.5	12262	15.9	2.14	3.34	5.4
TOTAL	100.0	100.0	9433	35.3	3.12	4.12	8.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KANSAS
COUNTY: CRAWFORD
COALBED: CROWEBURG
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.2	30.2	14032	5.5	1.52	2.93	4.2
FLOAT-1.40	72.5	78.1	13637	8.2	2.11	3.50	5.1
FLOAT-1.60	88.8	93.2	13286	10.6	2.50	3.89	5.9
TOTAL	100.0	100.0	12658	14.9	2.72	4.10	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.6	35.2	14119	4.9	1.77	3.00	4.2
FLOAT-1.40	73.9	80.0	13710	7.7	2.42	3.61	5.3
FLOAT-1.60	87.1	92.2	13418	9.7	2.52	3.86	5.8
TOTAL	100.0	100.0	12672	14.8	2.90	4.23	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.1	30.6	14221	4.2	1.24	2.62	3.7
FLOAT-1.40	72.1	78.7	13754	7.4	2.12	3.54	5.1
FLOAT-1.60	86.6	92.4	13447	9.5	2.61	3.99	5.9
TOTAL	100.0	100.0	12599	15.3	2.98	4.34	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KANSAS
COUNTY: CHEROKEE

COALBED: FLEMING
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.5	56.0	13948	4.3	1.07	2.80	4.0
FLOAT-1.40	68.2	75.7	13683	6.1	1.41	3.10	4.5
FLOAT-1.60	79.0	85.9	13403	8.0	2.07	3.68	5.5
TOTAL	100.0	100.0	12327	15.3	3.62	5.01	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.2	68.2	13948	4.3	1.08	2.75	3.9
FLOAT-1.40	71.4	80.0	13801	5.3	1.39	3.06	4.4
FLOAT-1.60	79.1	87.3	13594	6.7	1.89	3.54	5.2
TOTAL	100.0	100.0	12312	15.4	3.70	5.16	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.6	71.5	14037	3.7	.91	2.66	3.8
FLOAT-1.40	71.8	81.4	13919	4.5	1.19	2.93	4.2
FLOAT-1.60	79.8	88.8	13668	6.2	1.77	3.45	5.0
TOTAL	100.0	100.0	12283	15.6	3.64	5.17	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KANSAS
COUNTY: CHEROKEE

COALBED: MINERAL
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.8	21.6	14016	5.2	.81	2.38	3.4
FLOAT-1.40	84.9	88.9	13465	9.1	1.41	2.85	4.2
FLOAT-1.60	91.5	95.0	13352	9.9	1.55	2.99	4.5
TOTAL	100.0	100.0	12857	13.4	2.54	4.03	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.2	33.9	14030	5.1	.87	2.42	3.4
FLOAT-1.40	85.3	89.6	13578	8.3	1.31	2.79	4.1
FLOAT-1.60	91.0	94.9	13479	9.0	1.45	2.93	4.3
TOTAL	100.0	100.0	12928	12.9	2.44	3.91	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.9	27.5	14100	4.6	.57	2.15	3.0
FLOAT-1.40	72.0	77.4	13747	7.1	.87	2.39	3.5
FLOAT-1.60	88.7	94.2	13578	8.3	1.14	2.62	3.9
TOTAL	100.0	100.0	12786	13.9	2.58	4.12	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KANSAS
COUNTY: CRAWFORD

COALBED: ROWE
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.0	15.3	13926	5.3	1.71	2.57	3.7
FLOAT-1.40	52.9	64.2	13249	9.9	3.08	3.86	5.8
FLOAT-1.60	75.7	89.0	12837	12.7	4.17	5.04	7.9
TOTAL	100.0	100.0	10925	25.7	5.84	6.63	12.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.3	32.4	13955	5.1	1.23	2.28	3.3
FLOAT-1.40	56.1	69.2	13425	8.7	2.26	3.33	5.0
FLOAT-1.60	74.8	89.5	13014	11.5	3.12	4.19	6.4
TOTAL	100.0	100.0	10881	26.0	5.26	6.14	11.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.5	31.4	14102	4.1	.98	2.04	2.9
FLOAT-1.40	54.0	66.5	13558	7.8	2.00	3.05	4.5
FLOAT-1.60	72.5	86.5	13146	10.6	2.93	3.92	6.0
TOTAL	100.0	100.0	11013	25.1	5.86	6.71	12.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KANSAS
COUNTY: CRAWFORD

COALBED: KNIFETON
RAW COAL MOISTURE: 1.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.6	39.2	13819	6.4	1.30	2.74	4.0
FLOAT-1.40	78.5	84.0	13429	9.1	1.97	3.36	5.0
FLOAT-1.60	89.3	94.0	13212	10.6	2.39	3.78	5.7
TOTAL	100.0	100.0	12546	15.2	3.58	5.06	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.0	40.2	13906	5.8	1.08	2.50	3.6
FLOAT-1.40	76.1	82.4	13472	8.8	1.79	3.18	4.7
FLOAT-1.60	86.8	92.7	13284	10.1	2.22	3.61	5.4
TOTAL	100.0	100.0	12445	15.9	3.57	5.08	8.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.0	32.9	14065	4.7	.80	2.20	3.1
FLOAT-1.40	76.0	82.6	13486	8.7	1.66	2.98	4.4
FLOAT-1.60	85.9	92.0	13298	10.0	2.06	3.39	5.1
TOTAL	100.0	100.0	12416	16.1	3.56	5.04	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KANSAS
COUNTY: CRAWFORD

COALBED: KNIFETON
RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	2.8	3.4	13892	4.4	1.03	2.31	3.3
FLOAT-1.40	29.8	33.8	12791	12.2	2.78	4.15	6.5
FLOAT-1.60	84.3	89.2	11930	18.3	3.56	4.89	8.2
TOTAL	100.0	100.0	11281	22.9	5.17	6.54	11.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.0	9.9	13934	4.1	.95	2.32	3.3
FLOAT-1.40	40.6	46.7	12988	10.8	2.09	3.51	5.4
FLOAT-1.60	81.9	88.4	12170	16.6	2.68	4.07	6.7
TOTAL	100.0	100.0	11281	22.9	5.09	6.61	11.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.0	18.6	13962	3.9	.86	2.17	3.1
FLOAT-1.40	43.2	50.9	13256	8.9	1.72	3.06	4.6
FLOAT-1.60	73.6	81.8	12509	14.2	2.35	3.68	5.9
TOTAL	100.0	100.0	11253	23.1	5.49	6.80	12.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (EAST)
COUNTY: MARTIN

COALBED: STOCKTON
RAW COAL MOISTURE: 2.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.0	38.7	13992	3.3	.06	.82	1.2
FLOAT-1.40	79.1	85.3	13659	5.6	.12	.88	1.3
FLOAT-1.60	87.6	92.9	13427	7.2	.13	.88	1.3
TOTAL	100.0	100.0	12659	12.5	.19	.88	1.4
EPA STANDARD	45.5	51.0	13912	3.9	.08	.84	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.3	36.7	13963	3.5	.05	.82	1.2
FLOAT-1.40	78.1	84.4	13673	5.5	.06	.82	1.2
FLOAT-1.60	87.2	92.7	13456	7.0	.07	.82	1.2
TOTAL	100.0	100.0	12659	12.5	.19	.88	1.4
EPA STANDARD	78.4	84.6	13667	5.5	.06	.82	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.3	36.7	14036	3.0	.06	.83	1.2
FLOAT-1.40	77.7	83.5	13688	5.4	.07	.82	1.2
FLOAT-1.60	88.0	93.3	13500	6.7	.08	.83	1.2
TOTAL	100.0	100.0	12731	12.0	.25	.94	1.5
EPA STANDARD	78.3	84.1	13677	5.5	.07	.82	1.20

STATE: KENTUCKY (EAST)
COUNTY: BELL

COALBED: HADDIX
RAW COAL MOISTURE: 3.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.7	33.9	13958	3.3	.28	1.30	1.9
FLOAT-1.40	74.6	83.1	13626	5.6	.36	1.29	1.9
FLOAT-1.60	86.1	93.7	13323	7.7	.39	1.31	2.0
TOTAL	100.0	100.0	12239	15.2	.42	1.29	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.0	36.6	14030	2.8	.44	1.18	1.7
FLOAT-1.40	73.1	81.7	13698	5.1	.46	1.26	1.8
FLOAT-1.60	85.7	93.8	13409	7.1	.46	1.27	1.9
TOTAL	100.0	100.0	12254	15.1	.53	1.25	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.0	33.5	14074	2.5	.14	1.25	1.8
FLOAT-1.40	69.2	78.5	13799	4.4	.27	1.27	1.8
FLOAT-1.60	83.8	93.0	13496	6.5	.34	1.32	2.0
TOTAL	100.0	100.0	12167	15.7	.49	1.35	2.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (EAST)
COUNTY: BELL

COALBED: HAZARD NO. 4
RAW COAL MOISTURE: 2.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.4	57.9	14457	2.7	.13	.84	1.2
FLOAT-1.40	73.2	87.9	14215	4.3	.26	.99	1.4
FLOAT-1.60	78.7	93.2	14034	5.5	.32	1.04	1.5
TOTAL	100.0	100.0	11845	20.0	.75	1.33	2.2
EPA STANDARD	52.8	64.4	14417	2.8	.15	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.0	64.5	14532	2.2	.10	.84	1.2
FLOAT-1.40	73.5	88.2	14321	3.6	.22	.95	1.3
FLOAT-1.60	78.7	93.2	14140	4.8	.27	1.01	1.4
TOTAL	100.0	100.0	11935	19.4	.70	1.28	2.1
EPA STANDARD	59.7	72.4	14478	2.5	.14	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.1	62.7	14578	1.9	.10	.95	1.3
FLOAT-1.40	67.9	82.2	14396	3.1	.20	1.05	1.5
FLOAT-1.60	77.1	91.7	14140	4.8	.28	1.11	1.6
TOTAL	100.0	100.0	11890	19.7	.69	1.34	2.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (EAST)
COUNTY: FLOYD

COALBED: HAZARD NO. 4
RAW COAL MOISTURE: 3.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.4	54.3	14052	3.4	.12	.83	1.2
FLOAT-1.40	79.0	89.4	13876	4.6	.11	.83	1.2
FLOAT-1.60	82.6	93.0	13803	5.1	.12	.83	1.2
TOTAL	100.0	100.0	12261	15.6	.22	.84	1.4
EPA STANDARD	81.1	91.5	13833	4.9	.12	.83	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.2	56.7	14052	3.4	.12	.78	1.1
FLOAT-1.40	77.4	88.0	13862	4.7	.15	.78	1.1
FLOAT-1.60	82.0	92.7	13773	5.3	.15	.78	1.1
TOTAL	100.0	100.0	12187	16.1	.23	.79	1.3
EPA STANDARD	89.4	95.7	13121	10.4	.16	.78	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.2	58.0	14141	2.8	.12	.73	1.0
FLOAT-1.40	73.7	84.0	13964	4.0	.10	.73	1.0
FLOAT-1.60	82.8	93.2	13788	5.2	.11	.73	1.1
TOTAL	100.0	100.0	12246	15.7	.21	.75	1.2
EPA STANDARD	97.4	99.0	12477	14.6	.20	.74	1.20

STATE: KENTUCKY (EAST)
COUNTY: HARLAN

COALBED: LOW SPLINT
RAW COAL MOISTURE: 2.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.7	30.1	14277	3.1	.35	1.80	2.5
FLOAT-1.40	84.2	88.5	13791	6.4	.75	2.16	3.1
FLOAT-1.60	90.3	94.2	13688	7.1	.98	2.37	3.5
FLOAT-1.90	92.9	96.6	13643	7.4	1.05	2.44	3.6
TOTAL	100.0	100.0	13128	10.9	1.73	3.07	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.1	49.8	14233	3.4	.50	1.96	2.8
FLOAT-1.40	79.3	84.4	14012	4.9	.68	2.14	3.1
FLOAT-1.60	88.3	93.0	13879	5.8	.92	2.36	3.4
FLOAT-1.90	92.6	97.0	13791	6.4	1.05	2.49	3.6
TOTAL	100.0	100.0	13172	10.6	1.73	3.13	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.6	52.4	14130	4.1	.48	1.79	2.5
FLOAT-1.40	83.0	88.5	13968	5.2	.64	1.94	2.8
FLOAT-1.60	91.1	96.0	13806	6.3	.88	2.15	3.1
FLOAT-1.90	93.4	97.9	13732	6.8	1.03	2.29	3.3
TOTAL	100.0	100.0	13098	11.1	1.79	3.02	4.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (EAST)
COUNTY: MCCREARY

COALBED: UPPER ELKHORN NO. 3
RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	74.0	82.4	14517	2.0	.14	.86	1.2
FLOAT-1.40	85.1	94.0	14397	2.8	.31	1.04	1.4
FLOAT-1.60	88.8	97.4	14306	3.4	.37	1.09	1.5
TOTAL	100.0	100.0	13038	11.8	.68	1.33	2.0
EPA STANDARD	74.6	83.1	14510	2.0	.15	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.9	81.4	14563	1.7	.14	.90	1.2
FLOAT-1.40	82.2	91.4	14502	2.1	.23	1.00	1.4
FLOAT-1.60	88.4	97.4	14366	3.0	.33	1.09	1.5
TOTAL	100.0	100.0	13038	11.8	.67	1.35	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.7	74.5	14623	1.3	.16	.91	1.2
FLOAT-1.40	82.2	91.1	14517	2.0	.27	1.04	1.4
FLOAT-1.60	88.4	97.2	14397	2.8	.37	1.12	1.6
TOTAL	100.0	100.0	13098	11.4	.65	1.33	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (EAST)
COUNTY: FLOYD

COALBED: UPPER ELKHORN NO. 2
RAW COAL MOISTURE: 3.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	74.0	77.4	14510	1.6	.12	.82	1.1
FLOAT-1.40	90.6	93.9	14390	2.4	.24	.94	1.3
FLOAT-1.60	94.2	96.8	14270	3.2	.27	.96	1.3
TOTAL	100.0	100.0	13880	5.8	.35	1.01	1.5
EPA STANDARD	80.6	84.6	14463	1.9	.16	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.5	74.9	14540	1.4	.10	.79	1.1
FLOAT-1.40	90.3	93.8	14420	2.2	.17	.86	1.2
FLOAT-1.60	94.0	96.9	14315	2.9	.21	.89	1.2
TOTAL	100.0	100.0	13880	5.8	.30	.96	1.4
EPA STANDARD	91.0	94.5	14405	2.3	.18	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	73.6	76.8	14555	1.3	.10	.79	1.1
FLOAT-1.40	90.2	93.4	14450	2.0	.20	.84	1.2
FLOAT-1.60	94.9	97.5	14330	2.8	.25	.89	1.2
TOTAL	100.0	100.0	13955	5.3	.40	1.01	1.4
EPA STANDARD	94.0	97.0	14394	2.4	.23	.86	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 14
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.9	42.2	13790	3.4	.89	2.12	3.1
FLOAT-1.40	69.5	77.0	13377	6.3	1.73	2.96	4.4
FLOAT-1.60	87.1	93.6	12964	9.2	2.36	3.58	5.5
TOTAL	100.0	100.0	12067	15.5	3.93	5.12	8.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.2	51.6	13832	3.1	.79	2.06	3.0
FLOAT-1.40	72.4	80.7	13491	5.5	1.44	2.73	4.0
FLOAT-1.60	85.6	92.9	13149	7.9	2.02	3.28	5.0
TOTAL	100.0	100.0	12110	15.2	3.67	4.95	8.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.8	60.5	13790	3.4	.63	1.97	2.9
FLOAT-1.40	73.5	82.8	13562	5.0	.89	2.24	3.3
FLOAT-1.60	83.7	92.1	13249	7.2	1.43	2.67	4.0
TOTAL	100.0	100.0	12039	15.7	3.91	4.98	8.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 14
RAW COAL MOISTURE: 3.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.0	32.2	13740	2.8	.49	1.53	2.2
FLOAT-1.40	48.1	74.9	13306	5.8	1.58	2.67	4.0
FLOAT-1.60	55.3	84.7	13089	7.3	2.07	3.07	4.7
TOTAL	100.0	100.0	8543	38.7	3.19	3.78	8.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.4	39.9	13769	2.6	.51	1.51	2.2
FLOAT-1.40	48.8	74.5	13393	5.2	1.36	2.42	3.6
FLOAT-1.60	56.4	84.5	13147	6.9	1.82	2.93	4.5
TOTAL	100.0	100.0	8775	37.1	3.04	3.89	8.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.5	32.3	13841	2.1	.30	1.44	2.1
FLOAT-1.40	44.3	68.2	13508	4.4	.90	2.11	3.1
FLOAT-1.60	55.1	82.5	13132	7.0	1.46	2.53	3.9
TOTAL	100.0	100.0	8775	37.1	2.92	3.71	8.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 14
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.7	47.9	13929	2.4	.50	1.60	2.3
FLOAT-1.40	69.1	83.1	13529	5.2	1.01	2.21	3.3
FLOAT-1.60	78.7	93.1	13301	6.8	1.35	2.58	3.9
FLOAT-1.90	81.3	95.2	13172	7.7	1.53	2.81	4.3
TOTAL	100.0	100.0	11246	21.2	2.62	3.82	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.0	55.3	13929	2.4	.50	1.59	2.3
FLOAT-1.40	69.3	83.2	13600	4.7	.87	2.04	3.0
FLOAT-1.60	79.1	93.1	13343	6.5	1.18	2.36	3.5
FLOAT-1.90	81.9	95.4	13201	7.5	1.36	2.59	3.9
TOTAL	100.0	100.0	11331	20.6	2.54	3.77	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.0	34.7	13971	2.1	.38	1.44	2.1
FLOAT-1.40	59.4	71.8	13615	4.6	.82	1.94	2.8
FLOAT-1.60	77.3	90.2	13144	7.9	1.21	2.36	3.6
FLOAT-1.90	83.3	95.3	12887	9.7	1.41	2.57	4.0
TOTAL	100.0	100.0	11260	21.1	2.51	3.83	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 12
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.0	11.8	13776	3.6	.59	2.90	4.2
FLOAT-1.40	75.7	82.8	12782	10.6	1.01	3.23	5.1
FLOAT-1.60	87.7	94.2	12555	12.2	1.17	3.35	5.3
TOTAL	100.0	100.0	11689	18.3	2.31	4.26	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.8	29.1	13805	3.4	.56	2.99	4.3
FLOAT-1.40	69.1	76.8	13080	8.5	.88	3.31	5.1
FLOAT-1.60	88.1	94.7	12654	11.5	1.16	3.46	5.5
TOTAL	100.0	100.0	11774	17.7	2.17	4.31	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.0	36.0	13762	3.7	.56	2.97	4.3
FLOAT-1.40	70.4	78.1	13151	8.0	.84	3.25	4.9
FLOAT-1.60	86.7	93.6	12796	10.5	1.01	3.31	5.2
TOTAL	100.0	100.0	11859	17.1	2.12	4.24	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBERG

COALBED: NO. 12
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.3	15.6	13581	4.2	.50	1.79	2.6
FLOAT-1.40	73.0	81.8	12976	8.5	1.06	2.41	3.7
FLOAT-1.60	82.6	90.9	12751	10.1	1.25	2.60	4.1
TOTAL	100.0	100.0	11584	18.4	3.35	4.65	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.0	26.9	13623	3.9	.62	1.89	2.8
FLOAT-1.40	71.9	80.2	13005	8.3	1.05	2.39	3.7
FLOAT-1.60	83.3	91.1	12751	10.1	1.29	2.63	4.1
TOTAL	100.0	100.0	11654	17.9	3.13	4.24	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.4	30.0	13722	3.2	.51	1.90	2.8
FLOAT-1.40	72.0	81.2	13117	7.5	.84	2.30	3.5
FLOAT-1.60	81.9	90.7	12878	9.2	1.14	2.52	3.9
TOTAL	100.0	100.0	11626	18.1	3.32	4.63	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBERG

COALBED: NO. 12
RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	21.6	25.2	13567	5.1	.74	2.67	3.9
FLOAT-1.40	70.8	78.7	12956	9.4	1.07	2.95	4.6
FLOAT-1.60	86.2	93.1	12587	12.0	1.28	3.10	4.9
TOTAL	100.0	100.0	11649	18.6	2.44	4.02	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.2	35.4	13596	4.9	.76	2.68	3.9
FLOAT-1.40	71.2	79.9	13027	8.9	1.05	2.94	4.5
FLOAT-1.60	84.7	92.6	12686	11.3	1.27	3.11	4.9
TOTAL	100.0	100.0	11606	18.9	2.67	4.27	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.1	39.3	13709	4.1	.58	2.54	3.7
FLOAT-1.40	69.2	78.8	13155	8.0	.85	2.80	4.3
FLOAT-1.60	82.2	91.0	12786	10.6	1.08	2.94	4.6
TOTAL	100.0	100.0	11549	19.3	2.64	4.23	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBERG

COALBED: NO. 12
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.7	26.4	13420	5.1	.62	1.99	3.0
FLOAT-1.40	73.9	82.5	12884	8.9	.99	2.48	3.8
FLOAT-1.60	84.9	92.9	12630	10.7	1.22	2.71	4.3
TOTAL	100.0	100.0	11544	18.4	3.65	5.00	8.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.6	33.0	13547	4.2	.49	1.93	2.8
FLOAT-1.40	76.2	84.2	12969	8.3	.96	2.40	3.7
FLOAT-1.60	86.1	93.5	12757	9.8	1.16	2.60	4.1
TOTAL	100.0	100.0	11742	17.0	3.28	4.57	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.4	32.3	13758	2.7	.43	1.85	2.7
FLOAT-1.40	66.7	75.6	13237	6.4	.78	2.27	3.4
FLOAT-1.60	82.4	91.1	12898	8.8	1.00	2.41	3.7
TOTAL	100.0	100.0	11671	17.5	3.34	4.60	7.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBERG

COALBED: NO. 12
RAW COAL MOISTURE: 3.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.8	31.2	13382	5.0	.78	1.64	2.5
FLOAT-1.40	79.9	86.3	12865	8.7	1.13	2.02	3.1
FLOAT-1.60	89.3	94.8	12656	10.2	1.24	2.14	3.4
TOTAL	100.0	100.0	11916	15.5	1.84	2.68	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.7	33.8	13522	4.0	.66	1.41	2.1
FLOAT-1.40	76.9	84.0	12977	7.9	1.05	1.86	2.9
FLOAT-1.60	88.0	94.4	12740	9.6	1.21	2.01	3.2
TOTAL	100.0	100.0	11874	15.8	1.84	2.56	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.5	14.3	13690	2.8	.55	.70	1.0
FLOAT-1.40	67.6	74.5	13201	6.3	.78	1.79	2.7
FLOAT-1.60	88.2	94.1	12768	9.4	1.08	1.96	3.1
TOTAL	100.0	100.0	11971	15.1	1.81	2.63	4.4
EPA STANDARD	15.0	18.2	13638	3.2	.57	.84	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBURG

COALBED: NO. 12
RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.9	26.9	13452	5.0	.68	1.77	2.6
FLOAT-1.40	75.0	81.6	13013	8.1	1.01	2.25	3.5
FLOAT-1.60	88.5	94.4	12758	9.9	1.48	2.80	4.4
FLOAT-1.90	92.2	97.1	12603	11.0	1.63	2.99	4.7
TOTAL	100.0	100.0	11966	15.5	2.52	4.05	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.2	28.6	13664	3.5	.49	1.67	2.4
FLOAT-1.40	74.9	81.5	13112	7.4	.93	2.20	3.4
FLOAT-1.60	88.1	94.0	12857	9.2	1.34	2.69	4.2
FLOAT-1.90	92.1	97.1	12702	10.3	1.51	2.88	4.5
TOTAL	100.0	100.0	12050	14.9	2.49	4.00	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.0	21.9	13778	2.7	.37	1.60	2.3
FLOAT-1.40	68.7	75.7	13183	6.9	.84	2.10	3.2
FLOAT-1.60	87.4	93.7	12829	9.4	1.26	2.55	4.0
FLOAT-1.90	91.6	96.9	12659	10.6	1.44	2.74	4.3
TOTAL	100.0	100.0	11966	15.5	2.53	4.02	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 11
RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.5	57.4	13978	2.9	.57	2.96	4.2
FLOAT-1.40	82.4	90.1	13705	4.8	.93	3.19	4.7
FLOAT-1.60	88.0	95.2	13561	5.8	1.08	3.29	4.9
TOTAL	100.0	100.0	12539	12.9	2.59	4.56	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.0	70.2	13949	3.1	.64	2.87	4.1
FLOAT-1.40	85.4	92.6	13777	4.3	.93	3.08	4.5
FLOAT-1.60	90.3	96.9	13647	5.2	1.06	3.18	4.7
TOTAL	100.0	100.0	12712	11.7	2.36	4.27	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.5	71.3	13964	3.0	.40	2.75	3.9
FLOAT-1.40	81.3	88.9	13820	4.0	.66	2.88	4.2
FLOAT-1.60	90.2	97.3	13633	5.3	.88	3.07	4.5
TOTAL	100.0	100.0	12640	12.2	2.35	4.37	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 11
RAW COAL MOISTURE: 5.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.7	77.6	13782	3.8	.65	2.72	3.9
FLOAT-1.40	78.3	90.2	13652	4.7	.84	2.89	4.2
FLOAT-1.60	83.4	95.0	13493	5.8	.99	3.01	4.5
TOTAL	100.0	100.0	11846	17.2	2.70	4.42	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.7	80.2	13826	3.5	.65	2.72	3.9
FLOAT-1.40	77.3	89.6	13725	4.2	.80	2.86	4.2
FLOAT-1.60	82.3	94.3	13580	5.2	.94	2.96	4.4
TOTAL	100.0	100.0	11846	17.2	2.83	4.56	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.9	41.1	13970	2.5	.40	2.47	3.5
FLOAT-1.40	70.6	81.9	13754	4.0	.59	2.57	3.7
FLOAT-1.60	81.5	93.3	13580	5.2	.85	2.73	4.0
TOTAL	100.0	100.0	11860	17.1	2.89	4.55	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBERG

COALBED: NO. 11
RAW COAL MOISTURE: 4.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	77.6	79.1	13952	3.4	.52	2.54	3.6
FLOAT-1.40	96.4	97.3	13812	4.3	.76	2.78	4.0
FLOAT-1.60	99.1	99.6	13749	4.7	.86	2.86	4.2
TOTAL	100.0	100.0	13687	5.1	.93	2.93	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	82.8	84.6	13968	3.3	.54	2.56	3.7
FLOAT-1.40	94.8	96.1	13858	4.0	.71	2.71	3.9
FLOAT-1.60	98.3	99.1	13780	4.5	.82	2.81	4.1
TOTAL	100.0	100.0	13671	5.2	.97	2.95	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	79.5	81.5	14015	3.0	.42	2.41	3.4
FLOAT-1.40	93.5	95.1	13905	3.7	.58	2.58	3.7
FLOAT-1.60	97.6	98.6	13812	4.3	.67	2.69	3.9
TOTAL	100.0	100.0	13671	5.2	.96	2.98	4.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBERG

COALBED: NO. 11
RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.0	65.7	13889	3.7	.71	3.03	4.4
FLOAT-1.40	84.1	92.3	13700	5.0	1.25	3.54	5.2
FLOAT-1.60	88.9	96.8	13584	5.8	1.48	3.75	5.5
TOTAL	100.0	100.0	12480	13.4	2.52	4.59	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.6	58.5	13933	3.4	.65	3.09	4.4
FLOAT-1.40	85.7	93.2	13642	5.4	1.35	3.68	5.4
FLOAT-1.60	89.4	96.7	13555	6.0	1.52	3.82	5.6
TOTAL	100.0	100.0	12538	13.0	2.68	4.75	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.9	69.6	13976	3.1	.43	2.93	4.2
FLOAT-1.40	79.0	86.2	13773	4.5	.88	3.31	4.8
FLOAT-1.60	89.8	96.9	13628	5.5	1.38	3.73	5.5
TOTAL	100.0	100.0	12625	12.4	2.66	4.80	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBERG

COALBED: NO. 11
RAW COAL MOISTURE: 2.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.7	73.1	13753	3.5	.46	2.73	4.0
FLOAT-1.40	83.8	90.7	13584	4.7	.69	2.89	4.3
FLOAT-1.60	89.4	95.7	13442	5.7	.95	3.11	4.6
TOTAL	100.0	100.0	12551	12.0	2.80	4.81	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.9	74.0	13782	3.3	.43	2.69	3.9
FLOAT-1.40	82.1	89.8	13626	4.4	.63	2.85	4.2
FLOAT-1.60	88.0	95.1	13456	5.6	.85	3.03	4.5
TOTAL	100.0	100.0	12452	12.7	3.00	5.05	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.2	73.3	13838	2.9	.40	2.58	3.7
FLOAT-1.40	79.8	87.2	13654	4.2	.57	2.68	3.9
FLOAT-1.60	88.4	95.3	13470	5.5	.74	2.84	4.2
TOTAL	100.0	100.0	12495	12.4	3.06	5.00	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBERG

COALBED: NO. 11
RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.1	73.3	13648	3.6	.52	2.71	4.0
FLOAT-1.40	84.6	92.8	13492	4.7	.80	2.89	4.3
FLOAT-1.60	87.7	95.6	13407	5.3	.87	2.94	4.4
TOTAL	100.0	100.0	12304	13.1	2.97	4.80	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.4	66.7	13719	3.1	.49	2.59	3.8
FLOAT-1.40	80.8	89.4	13521	4.5	.79	2.82	4.2
FLOAT-1.60	85.9	94.1	13379	5.5	.93	2.93	4.4
TOTAL	100.0	100.0	12219	13.7	3.13	4.88	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.2	66.2	13719	3.1	.49	2.48	3.6
FLOAT-1.40	78.8	87.2	13563	4.2	.66	2.76	4.1
FLOAT-1.60	86.5	94.2	13351	5.7	.84	2.88	4.3
TOTAL	100.0	100.0	12261	13.4	3.07	4.88	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBERG

COALBED: NO. 11
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.4	70.3	13774	3.6	.67	2.91	4.2
FLOAT-1.40	83.5	91.3	13587	4.9	1.12	3.34	4.9
FLOAT-1.60	88.2	95.7	13486	5.6	1.41	3.58	5.3
TOTAL	100.0	100.0	12424	13.0	2.87	4.80	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.9	74.0	13802	3.4	.64	2.79	4.0
FLOAT-1.40	83.7	91.4	13630	4.6	1.03	3.15	4.6
FLOAT-1.60	88.6	95.9	13515	5.4	1.25	3.35	5.0
TOTAL	100.0	100.0	12481	12.6	2.63	4.52	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.4	66.3	13817	3.3	.57	2.83	4.1
FLOAT-1.40	80.7	87.7	13673	4.3	.83	3.02	4.4
FLOAT-1.60	89.1	95.5	13486	5.6	1.23	3.32	4.9
TOTAL	100.0	100.0	12582	11.9	2.69	4.65	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: DAVIESS
COALBED: NO. 9
RAW COAL MOISTURE: 5.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.6	45.2	13491	4.6	.57	2.40	3.6
FLOAT-1.40	79.6	86.4	13138	7.1	.87	2.69	4.1
FLOAT-1.60	88.0	94.3	12968	8.3	1.23	3.04	4.7
FLOAT-1.90	91.5	97.1	12841	9.2	1.50	3.31	5.2
TOTAL	100.0	100.0	12105	14.4	2.73	4.50	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.2	48.6	13661	3.4	.48	2.30	3.4
FLOAT-1.40	78.7	86.2	13307	5.9	.67	2.48	3.7
FLOAT-1.60	87.2	94.2	13124	7.2	.93	2.71	4.1
FLOAT-1.90	89.8	96.3	13025	7.9	1.12	2.89	4.4
TOTAL	100.0	100.0	12148	14.1	2.77	4.50	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.2	34.6	13831	2.2	.42	2.24	3.2
FLOAT-1.40	72.1	80.0	13392	5.3	.63	2.43	3.6
FLOAT-1.60	86.1	93.5	13095	7.4	.90	2.64	4.0
FLOAT-1.90	89.5	96.1	12954	8.4	1.07	2.79	4.3
TOTAL	100.0	100.0	12063	14.7	2.88	4.57	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS
COALBED: NO. 9
RAW COAL MOISTURE: 5.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.2	47.2	13670	4.2	.58	2.41	3.5
FLOAT-1.40	81.8	87.0	13313	6.7	1.09	2.89	4.3
FLOAT-1.60	90.4	95.0	13156	7.8	1.50	3.28	5.0
TOTAL	100.0	100.0	12513	12.3	2.86	4.60	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.0	52.5	13698	4.0	.52	2.46	3.6
FLOAT-1.40	81.4	86.9	13356	6.4	.90	2.82	4.2
FLOAT-1.60	90.2	94.9	13170	7.7	1.22	3.11	4.7
TOTAL	100.0	100.0	12513	12.3	2.80	4.51	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.2	61.3	13641	4.4	.72	2.60	3.8
FLOAT-1.40	80.8	86.4	13370	6.3	.86	2.95	4.4
FLOAT-1.60	85.9	91.0	13241	7.2	1.12	2.97	4.5
TOTAL	100.0	100.0	12499	12.4	3.02	4.79	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 9
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.7	49.1	13799	4.4	.67	2.38	3.4
FLOAT-1.40	91.0	93.1	13432	6.9	1.10	2.79	4.2
FLOAT-1.60	96.5	98.1	13344	7.5	1.47	3.16	4.7
TOTAL	100.0	100.0	13123	9.0	2.35	4.04	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.4	54.3	13858	4.0	.59	2.33	3.4
FLOAT-1.40	89.6	92.2	13491	6.5	.96	2.66	3.9
FLOAT-1.60	95.5	97.5	13388	7.2	1.28	2.95	4.4
TOTAL	100.0	100.0	13109	9.1	2.41	4.07	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.4	58.0	13887	3.8	.53	2.28	3.3
FLOAT-1.40	85.2	89.0	13623	5.6	.78	2.44	3.6
FLOAT-1.60	93.6	96.4	13432	6.9	1.11	2.77	4.1
TOTAL	100.0	100.0	13035	9.6	2.57	4.19	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 9
RAW COAL MOISTURE: 4.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.9	58.9	13679	4.2	.50	2.42	3.5
FLOAT-1.40	85.7	89.8	13356	6.5	.62	2.48	3.7
FLOAT-1.60	93.9	96.6	13117	8.2	.77	2.60	4.0
TOTAL	100.0	100.0	12752	10.8	2.22	4.03	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.7	65.3	13693	4.1	.46	2.39	3.5
FLOAT-1.40	84.2	88.7	13426	6.0	.59	2.48	3.7
FLOAT-1.60	93.0	96.1	13159	7.9	.75	2.60	4.0
TOTAL	100.0	100.0	12738	10.9	2.40	4.22	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.4	54.8	13861	2.9	.33	2.26	3.3
FLOAT-1.40	79.2	84.4	13566	5.0	.47	2.35	3.5
FLOAT-1.60	91.2	95.0	13271	7.1	.65	2.55	3.8
TOTAL	100.0	100.0	12738	10.9	2.35	4.17	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 9
RAW COAL MOISTURE: 3.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.5	47.7	13717	4.3	.48	2.59	3.8
FLOAT-1.40	84.0	87.4	13324	7.1	.79	2.83	4.2
FLOAT-1.60	93.0	95.3	13128	8.5	1.08	3.09	4.7
TOTAL	100.0	100.0	12805	10.8	1.85	3.78	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.1	44.1	13773	3.9	.48	2.61	3.8
FLOAT-1.40	84.8	88.7	13437	6.3	.79	2.85	4.2
FLOAT-1.60	92.8	95.6	13240	7.7	.98	3.00	4.5
TOTAL	100.0	100.0	12847	10.5	1.81	3.74	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.3	71.2	13745	4.1	.56	2.74	4.0
FLOAT-1.40	82.5	87.1	13521	5.7	.71	2.83	4.2
FLOAT-1.60	91.9	95.4	13296	7.3	.92	3.00	4.5
TOTAL	100.0	100.0	12805	10.8	1.86	3.83	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 9
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.4	50.3	13793	4.6	.70	2.57	3.7
FLOAT-1.40	81.4	87.5	13389	7.4	1.20	2.99	4.5
FLOAT-1.60	89.6	95.0	13201	8.7	1.57	3.29	5.0
TOTAL	100.0	100.0	12451	13.9	2.80	4.46	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.3	55.8	13836	4.3	.59	2.52	3.6
FLOAT-1.40	80.0	86.6	13490	6.7	1.00	2.86	4.2
FLOAT-1.60	89.1	94.9	13273	8.2	1.36	3.16	4.8
TOTAL	100.0	100.0	12465	13.8	2.76	4.49	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.8	54.3	13851	4.2	.67	2.48	3.6
FLOAT-1.40	79.5	86.3	13519	6.5	1.03	2.77	4.1
FLOAT-1.60	90.9	96.9	13273	8.2	1.37	3.06	4.6
TOTAL	100.0	100.0	12451	13.9	2.78	4.41	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 9
RAW COAL MOISTURE: 3.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.1	69.3	14056	3.9	.52	3.38	4.8
FLOAT-1.40	91.1	95.5	13851	5.3	.72	3.54	5.1
FLOAT-1.60	93.8	97.8	13778	5.8	.78	3.59	5.2
FLOAT-1.90	94.8	98.6	13734	6.1	.82	3.61	5.3
TOTAL	100.0	100.0	13208	9.7	1.49	4.18	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.0	76.6	14100	3.6	.47	3.32	4.7
FLOAT-1.40	89.3	94.1	13968	4.5	.61	3.42	4.9
FLOAT-1.60	93.1	97.5	13880	5.1	.69	3.49	5.0
FLOAT-1.90	94.4	98.4	13807	5.6	.74	3.52	5.1
TOTAL	100.0	100.0	13252	9.4	1.55	4.19	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.5	58.7	14202	2.9	.36	3.21	4.5
FLOAT-1.40	86.5	91.7	13983	4.4	.55	3.44	4.9
FLOAT-1.60	92.6	97.1	13836	5.4	.67	3.43	5.0
FLOAT-1.90	94.2	98.3	13763	5.9	.73	3.47	5.0
TOTAL	100.0	100.0	13193	9.8	1.61	4.20	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 9
RAW COAL MOISTURE: 3.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.6	44.6	13705	4.0	.49	2.55	3.7
FLOAT-1.40	80.2	87.9	13334	6.6	.77	2.78	4.2
FLOAT-1.60	87.1	94.4	13177	7.7	.90	2.88	4.4
FLOAT-1.90	90.3	96.7	13020	8.8	1.09	3.04	4.7
TOTAL	100.0	100.0	12163	14.8	2.10	3.93	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.8	42.9	13819	3.2	.38	2.45	3.5
FLOAT-1.40	78.9	86.9	13419	6.0	.64	2.63	3.9
FLOAT-1.60	87.0	94.6	13248	7.2	.75	2.73	4.1
FLOAT-1.90	89.2	96.2	13134	8.0	.84	2.79	4.2
TOTAL	100.0	100.0	12178	14.7	2.10	3.91	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.4	37.3	13905	2.6	.34	2.42	3.5
FLOAT-1.40	71.1	79.5	13519	5.3	.59	2.57	3.8
FLOAT-1.60	85.7	93.6	13205	7.5	.75	2.70	4.1
FLOAT-1.90	88.7	95.8	13063	8.5	.84	2.76	4.2
TOTAL	100.0	100.0	12092	15.3	2.15	3.95	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBURG

COALBED: NO. 9
RAW COAL MOISTURE: 6.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.8	48.3	13732	4.1	.68	2.73	4.0
FLOAT-1.40	88.7	91.5	13446	6.1	1.00	3.07	4.6
FLOAT-1.60	94.7	97.0	13345	6.8	1.27	3.41	5.1
FLOAT-1.90	96.0	98.0	13302	7.1	1.41	3.57	5.4
TOTAL	100.0	100.0	13030	9.0	2.19	4.33	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.2	53.4	13889	3.0	.42	2.45	3.5
FLOAT-1.40	86.4	89.9	13589	5.1	.77	2.81	4.1
FLOAT-1.60	93.7	96.6	13460	6.0	1.05	3.13	4.7
FLOAT-1.90	95.2	97.7	13403	6.4	1.19	3.30	4.9
TOTAL	100.0	100.0	13059	8.8	2.21	4.36	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.4	46.4	13904	2.9	.40	2.40	3.5
FLOAT-1.40	84.4	88.3	13603	5.0	.73	2.75	4.0
FLOAT-1.60	93.3	96.5	13446	6.1	.99	3.03	4.5
FLOAT-1.90	95.1	97.8	13374	6.6	1.15	3.22	4.8
TOTAL	100.0	100.0	13002	9.2	2.21	4.34	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: OHIO

COALBED: NO. 9
RAW COAL MOISTURE: 5.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.4	60.0	13697	4.2	.58	2.65	3.9
FLOAT-1.40	89.8	91.5	13342	6.5	1.03	3.07	4.6
FLOAT-1.60	98.2	98.8	13172	7.6	1.40	3.44	5.2
TOTAL	100.0	100.0	13095	8.1	1.60	3.63	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.2	64.4	13728	4.0	.56	2.68	3.9
FLOAT-1.40	87.4	90.0	13434	5.9	.90	3.00	4.5
FLOAT-1.60	96.5	97.8	13218	7.3	1.23	3.31	5.0
TOTAL	100.0	100.0	13049	8.4	1.63	3.72	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.7	52.5	13805	3.5	.71	2.73	4.0
FLOAT-1.40	85.1	87.9	13512	5.4	.82	2.87	4.2
FLOAT-1.60	95.8	97.4	13296	6.8	1.11	3.11	4.7
TOTAL	100.0	100.0	13080	8.2	1.61	3.60	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: OHIO

COALBED: NO. 9
RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.1	54.6	13682	4.2	.61	2.68	3.9
FLOAT-1.40	83.5	90.5	13339	6.6	1.05	3.18	4.8
FLOAT-1.60	90.6	97.2	13211	7.5	1.29	3.44	5.2
FLOAT-1.90	91.8	98.1	13153	7.9	1.39	3.55	5.4
TOTAL	100.0	100.0	12311	13.8	2.10	4.22	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.3	55.0	13753	3.7	.52	2.58	3.8
FLOAT-1.40	80.9	88.2	13453	5.8	.87	2.99	4.4
FLOAT-1.60	89.8	96.6	13268	7.1	1.14	3.27	4.9
FLOAT-1.90	91.5	97.9	13196	7.6	1.24	3.38	5.1
TOTAL	100.0	100.0	12339	13.6	2.06	4.16	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.9	39.5	13853	3.0	.41	2.46	3.6
FLOAT-1.40	72.0	79.6	13525	5.3	.73	2.79	4.1
FLOAT-1.60	87.7	94.6	13196	7.6	1.11	3.14	4.8
FLOAT-1.90	91.2	97.4	13068	8.5	1.26	3.29	5.0
TOTAL	100.0	100.0	12239	14.3	2.25	4.23	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: UNION

COALBED: NO. 9
RAW COAL MOISTURE: 4.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.2	73.1	13259	5.8	.76	2.74	4.1
FLOAT-1.40	74.4	86.5	13118	6.8	.90	2.85	4.3
FLOAT-1.60	81.9	93.8	12935	8.1	1.13	3.06	4.7
FLOAT-1.90	84.3	96.0	12850	8.7	1.26	3.16	4.9
TOTAL	100.0	100.0	11288	19.8	2.72	4.54	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.3	56.8	13526	3.9	.53	2.55	3.8
FLOAT-1.40	68.4	80.6	13273	5.7	.76	2.71	4.1
FLOAT-1.60	79.8	92.0	12977	7.8	1.09	2.97	4.6
FLOAT-1.90	84.6	96.1	12794	9.1	1.35	3.16	4.9
TOTAL	100.0	100.0	11260	20.0	2.93	4.54	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.0	44.8	13653	3.0	.42	2.47	3.6
FLOAT-1.40	64.5	76.0	13287	5.6	.66	2.56	3.9
FLOAT-1.60	80.2	91.6	12879	8.5	1.01	2.75	4.3
FLOAT-1.90	85.2	95.5	12639	10.2	1.22	2.90	4.6
TOTAL	100.0	100.0	11274	19.9	2.77	4.22	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NO. 9
COUNTY: UNION RAW COAL MOISTURE: 4.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.9	43.1	13635	4.3	.35	2.17	3.2
FLOAT-1.40	83.2	86.8	13183	7.5	.75	2.54	3.9
FLOAT-1.60	92.6	95.3	12999	8.8	.99	2.76	4.2
TOTAL	100.0	100.0	12632	11.4	2.31	4.04	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.8	55.8	13677	4.0	.38	2.22	3.2
FLOAT-1.40	83.2	87.4	13338	6.4	.69	2.50	3.7
FLOAT-1.60	91.7	95.0	13155	7.7	.88	2.64	4.0
TOTAL	100.0	100.0	12702	10.9	2.16	3.86	6.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.3	38.7	13932	2.2	.21	2.11	3.0
FLOAT-1.40	77.4	82.3	13508	5.2	.51	2.38	3.5
FLOAT-1.60	90.6	94.5	13253	7.0	.70	2.48	3.7
TOTAL	100.0	100.0	12702	10.9	2.16	3.82	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NO. 9
COUNTY: UNION RAW COAL MOISTURE: 2.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.1	33.5	14123	3.5	.41	2.40	3.4
FLOAT-1.40	81.3	84.4	13616	7.1	.76	2.88	4.2
FLOAT-1.60	94.5	96.3	13376	8.8	1.32	3.33	5.0
TOTAL	100.0	100.0	13122	10.6	2.20	4.17	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.4	41.4	14194	3.0	.28	2.41	3.4
FLOAT-1.40	82.7	86.2	13700	6.5	.68	2.66	3.9
FLOAT-1.60	94.1	96.3	13461	8.2	1.04	2.98	4.4
TOTAL	100.0	100.0	13151	10.4	2.08	3.97	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.9	45.5	14250	2.6	.26	2.54	3.6
FLOAT-1.40	79.2	83.6	13841	5.5	.57	2.70	3.9
FLOAT-1.60	92.6	95.8	13559	7.5	.93	3.01	4.4
TOTAL	100.0	100.0	13108	10.7	2.29	4.24	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: BUTLER

COALBED: NO. 5
RAW COAL MOISTURE: 3.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.1	52.9	13927	2.3	.53	1.29	1.9
FLOAT-1.40	72.1	81.2	13685	4.0	.93	1.85	2.7
FLOAT-1.60	84.6	93.6	13442	5.7	1.36	2.39	3.6
FLOAT-1.90	88.8	96.7	13229	7.2	1.59	2.67	4.0
TOTAL	100.0	100.0	12145	14.8	2.67	3.99	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.6	69.1	14027	1.6	.19	.92	1.3
FLOAT-1.40	77.6	87.5	13870	2.7	.37	1.11	1.6
FLOAT-1.60	84.4	94.2	13728	3.7	.57	1.31	1.9
FLOAT-1.90	86.9	96.1	13599	4.6	.69	1.46	2.1
TOTAL	100.0	100.0	12302	13.7	2.39	3.57	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.0	58.8	14070	1.3	.17	.87	1.2
FLOAT-1.40	65.8	76.6	13941	2.2	.27	.98	1.4
FLOAT-1.60	80.3	91.3	13613	4.5	.58	1.31	1.9
FLOAT-1.90	84.0	94.4	13457	5.6	.69	1.42	2.1
TOTAL	100.0	100.0	11974	16.0	3.25	4.57	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: HOPKINS

COALBED: NO. 6
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.7	73.5	13864	2.6	.58	1.46	2.1
FLOAT-1.40	78.1	91.0	13779	3.2	.72	1.65	2.4
FLOAT-1.60	81.4	94.2	13693	3.8	.82	1.76	2.6
FLOAT-1.90	84.2	96.3	13522	5.0	.96	1.90	2.8
TOTAL	100.0	100.0	11829	16.9	1.78	2.63	4.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.2	46.6	13992	1.7	.37	1.23	1.8
FLOAT-1.40	80.0	91.8	13850	2.7	.56	1.51	2.2
FLOAT-1.60	82.8	94.5	13779	3.2	.65	1.60	2.3
FLOAT-1.90	85.2	96.4	13650	4.1	.76	1.70	2.5
TOTAL	100.0	100.0	12071	15.2	1.69	2.55	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.9	30.8	14049	1.3	.27	1.16	1.7
FLOAT-1.40	70.0	82.0	13864	2.6	.46	1.35	1.9
FLOAT-1.60	78.4	90.6	13665	4.0	.60	1.48	2.2
FLOAT-1.90	84.0	95.4	13437	5.6	.72	1.58	2.4
TOTAL	100.0	100.0	11829	16.9	1.75	2.54	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NO. 6
COUNTY: HOPKINS RAW COAL MOISTURE: 4.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	80.5	86.4	14085	2.0	.35	1.18	1.7
FLOAT-1.40	87.4	93.5	14041	2.3	.43	1.27	1.8
FLOAT-1.60	91.4	97.0	13926	3.1	.58	1.47	2.1
FLOAT-1.90	93.1	98.2	13840	3.7	.69	1.61	2.3
TOTAL	100.0	100.0	13121	8.7	1.20	2.16	3.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	80.4	86.5	14099	1.9	.33	1.15	1.6
FLOAT-1.40	87.3	93.5	14041	2.3	.40	1.23	1.8
FLOAT-1.60	91.0	96.8	13941	3.0	.52	1.39	2.0
FLOAT-1.90	93.0	98.2	13840	3.7	.65	1.56	2.3
TOTAL	100.0	100.0	13107	8.8	1.23	2.20	3.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.9	74.1	14113	1.8	.32	1.14	1.6
FLOAT-1.40	84.7	90.4	13998	2.6	.40	1.22	1.7
FLOAT-1.60	91.3	96.5	13869	3.5	.52	1.36	2.0
FLOAT-1.90	93.8	98.3	13754	4.3	.63	1.49	2.2
TOTAL	100.0	100.0	13121	8.7	1.22	2.16	3.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST) COALBED: NOS. 6 AND 9
COUNTY: UNION RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.6	51.4	14231	3.5	.19	1.97	2.8
FLOAT-1.40	77.9	85.6	13879	5.9	.67	2.31	3.3
FLOAT-1.60	86.2	93.3	13674	7.3	.92	2.52	3.7
TOTAL	100.0	100.0	12633	14.4	2.80	4.24	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.7	53.7	14216	3.6	.44	2.05	2.9
FLOAT-1.40	77.9	85.6	13879	5.9	.80	2.39	3.4
FLOAT-1.60	86.1	93.3	13688	7.2	1.05	2.61	3.8
TOTAL	100.0	100.0	12633	14.4	2.84	4.33	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.1	51.9	14157	4.0	.64	2.25	3.2
FLOAT-1.40	74.7	83.1	13981	5.2	.67	2.24	3.2
FLOAT-1.60	85.7	93.2	13674	7.3	1.06	2.64	3.9
TOTAL	100.0	100.0	12574	14.8	2.96	4.48	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: KENTUCKY (WEST)
COUNTY: MUHLENBERG

COALBED: NOS. 11 AND 12
RAW COAL MOISTURE: 3.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.5	70.3	13720	4.6	.68	2.75	4.0
FLOAT-1.40	91.4	93.3	13446	6.4	1.01	3.05	4.5
FLOAT-1.60	98.0	98.9	13294	7.4	1.26	3.27	4.9
TOTAL	100.0	100.0	13173	8.2	1.39	3.39	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.1	74.3	13704	4.7	.74	2.76	4.0
FLOAT-1.40	89.0	91.6	13492	6.1	.99	3.01	4.5
FLOAT-1.60	96.7	98.2	13309	7.3	1.22	3.22	4.8
TOTAL	100.0	100.0	13112	8.6	1.50	3.49	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.9	61.1	13887	3.5	.47	2.58	3.7
FLOAT-1.40	88.4	91.3	13583	5.5	.73	2.82	4.2
FLOAT-1.60	96.5	97.9	13355	7.0	.94	3.00	4.5
TOTAL	100.0	100.0	13158	8.3	1.40	3.42	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: WAYNESBURG
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.2	12.7	14607	3.5	.05	1.14	1.6
FLOAT-1.40	50.8	60.0	13897	8.2	.15	1.18	1.7
FLOAT-1.60	75.1	85.0	13322	12.0	.38	1.39	2.1
TOTAL	100.0	100.0	11765	22.3	1.29	2.26	3.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.4	15.5	14637	3.3	.03	1.10	1.5
FLOAT-1.40	52.2	62.5	13987	7.6	.07	1.06	1.5
FLOAT-1.60	74.2	85.2	13398	11.5	.15	1.09	1.6
TOTAL	100.0	100.0	11674	22.9	1.38	2.17	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.7	10.9	14789	2.3	.01	1.07	1.4
FLOAT-1.40	43.3	51.9	14199	6.2	.04	1.05	1.5
FLOAT-1.60	74.9	85.8	13579	10.3	.11	1.05	1.5
TOTAL	100.0	100.0	11856	21.7	1.37	2.15	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: WAYNESBURG
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.9	10.4	14845	3.2	.23	1.47	2.0
FLOAT-1.40	71.3	78.8	13990	8.8	.67	1.85	2.6
FLOAT-1.60	83.4	90.3	13715	10.6	1.05	2.19	3.2
TOTAL	100.0	100.0	12662	17.5	1.41	2.49	3.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.4	16.8	14845	3.2	.27	1.53	2.1
FLOAT-1.40	69.6	77.3	14112	8.0	.70	1.89	2.7
FLOAT-1.60	84.2	91.3	13776	10.2	1.06	2.20	3.2
TOTAL	100.0	100.0	12707	17.2	1.54	2.60	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.0	20.2	14968	2.4	.19	1.40	1.9
FLOAT-1.40	55.1	62.9	14341	6.5	.60	1.78	2.5
FLOAT-1.60	82.8	90.0	13669	10.9	1.01	2.05	3.0
TOTAL	100.0	100.0	12570	18.1	1.52	2.49	4.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: SEWICKLEY
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.0	42.5	15077	2.7	.03	.99	1.3
FLOAT-1.40	85.3	88.6	14747	4.8	.03	.97	1.3
FLOAT-1.60	95.5	97.3	14464	6.6	.12	1.05	1.5
TOTAL	100.0	100.0	14196	8.3	.24	1.16	1.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.5	50.9	15077	2.7	.01	1.04	1.4
FLOAT-1.40	87.8	90.2	14747	4.8	.03	1.03	1.4
FLOAT-1.60	96.8	98.1	14542	6.1	.09	1.07	1.5
TOTAL	100.0	100.0	14354	7.3	.19	1.17	1.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.6	62.2	15062	2.8	.01	1.03	1.4
FLOAT-1.40	86.2	89.9	14794	4.5	.02	1.02	1.4
FLOAT-1.60	93.3	96.1	14605	5.7	.06	1.04	1.4
TOTAL	100.0	100.0	14181	8.4	.26	1.23	1.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: SEWICKLEY
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.9	18.4	14741	3.2	.05	1.10	1.5
FLOAT-1.40	63.4	80.5	14144	7.1	.31	1.12	1.6
FLOAT-1.60	74.9	93.0	13838	9.1	.42	1.25	1.8
TOTAL	100.0	100.0	11146	26.7	.73	1.48	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.6	22.5	14771	3.0	.07	1.19	1.6
FLOAT-1.40	65.6	80.9	14221	6.6	.32	1.32	1.9
FLOAT-1.60	77.8	94.0	13930	8.5	.41	1.41	2.0
TOTAL	100.0	100.0	11529	24.2	.73	1.58	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.0	25.2	14832	2.6	.08	1.17	1.6
FLOAT-1.40	56.9	72.8	14282	6.2	.29	1.27	1.8
FLOAT-1.60	74.0	91.4	13792	9.4	.43	1.39	2.0
TOTAL	100.0	100.0	11162	26.6	.82	1.59	2.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: REDSTONE
RAW COAL MOISTURE: .7 %

BENCH: TOP

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.8	9.5	14801	2.8	.10	1.34	1.8
FLOAT-1.40	59.6	68.7	14068	7.6	.16	1.34	1.9
FLOAT-1.60	77.8	80.2	12587	17.3	1.03	2.05	3.3
TOTAL	100.0	100.0	12205	19.8	1.74	2.75	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.4	11.3	14785	2.9	.07	1.35	1.8
FLOAT-1.40	60.9	69.2	13946	8.4	.14	1.31	1.9
FLOAT-1.60	79.5	87.2	13457	11.6	.37	1.45	2.2
TOTAL	100.0	100.0	12267	19.4	1.75	2.77	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.4	11.3	14862	2.4	.02	1.33	1.8
FLOAT-1.40	50.8	58.4	14144	7.1	.09	1.28	1.8
FLOAT-1.60	79.3	87.5	13579	10.8	.25	1.41	2.1
TOTAL	100.0	100.0	12312	19.1	1.84	2.87	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: REDSTONE
RAW COAL MOISTURE: 1.0 %

BENCH: BOTTOM

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	2.1	2.7	14792	2.5	.26	1.56	2.1
FLOAT-1.40	33.9	39.9	13590	10.5	.84	2.00	2.9
FLOAT-1.60	76.5	85.0	12824	15.6	2.05	3.09	4.8
TOTAL	100.0	100.0	11548	24.1	2.96	3.87	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	2.8	3.6	14777	2.6	.24	1.50	2.0
FLOAT-1.40	38.5	45.7	13666	10.0	.80	1.94	2.8
FLOAT-1.60	75.7	85.2	12945	14.8	1.71	2.83	4.4
TOTAL	100.0	100.0	11502	24.4	2.97	3.90	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.5	4.5	14822	2.3	.24	1.54	2.1
FLOAT-1.40	35.8	43.3	13951	8.1	.54	1.79	2.6
FLOAT-1.60	72.1	82.4	13185	13.2	1.06	2.10	3.2
TOTAL	100.0	100.0	11533	24.2	2.99	3.88	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 4.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.9	1.0	13419	5.6	.05	1.12	1.7
FLOAT-1.40	3.8	4.2	13504	5.0	.03	1.10	1.6
FLOAT-1.60	49.7	54.3	13419	5.6	.02	.89	1.3
TOTAL	100.0	100.0	12290	13.5	.03	.82	1.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.5	.5	13333	6.2	.03	1.37	2.1
FLOAT-1.40	3.2	3.5	13490	5.1	.03	1.17	1.7
FLOAT-1.60	50.8	54.9	13404	5.7	.01	.91	1.4
TOTAL	100.0	100.0	12404	12.7	.01	.86	1.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	1.3	1.5	13876	2.4	.04	1.10	1.6
FLOAT-1.60	45.6	49.6	13461	5.3	.01	.93	1.4
TOTAL	100.0	100.0	12375	12.9	.02	.88	1.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: LITTLE PITTSBURGH
RAW COAL MOISTURE: 9.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	16.1	19.4	12901	5.1	.02	1.08	1.7
FLOAT-1.60	82.5	89.8	11675	14.1	.12	1.05	1.8
TOTAL	100.0	100.0	10721	21.1	.24	1.12	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	18.2	21.7	12887	5.2	.04	1.14	1.8
FLOAT-1.60	81.3	88.7	11811	13.1	.09	1.06	1.8
TOTAL	100.0	100.0	10830	20.3	.23	1.13	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	10.6	12.8	13078	3.8	.04	1.18	1.8
FLOAT-1.60	80.6	87.8	11797	13.2	.07	1.03	1.7
TOTAL	100.0	100.0	10830	20.3	.26	1.17	2.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: FRANKLIN
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.1	9.0	14860	3.3	.59	1.50	2.0
FLOAT-1.40	88.3	91.8	13853	9.8	1.37	2.18	3.1
FLOAT-1.60	92.7	95.9	13791	10.2	1.50	2.31	3.3
TOTAL	100.0	100.0	13327	13.2	2.03	2.80	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.6	13.1	14876	3.2	.51	1.42	1.9
FLOAT-1.40	70.2	74.6	13977	9.0	1.02	1.97	2.8
FLOAT-1.60	92.9	96.0	13590	11.5	1.63	2.49	3.7
TOTAL	100.0	100.0	13156	14.3	2.18	3.01	4.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.3	19.6	14922	2.9	.35	1.25	1.7
FLOAT-1.40	64.9	70.2	14272	7.1	.71	1.54	2.2
FLOAT-1.60	89.3	93.3	13791	10.2	1.14	1.96	2.8
TOTAL	100.0	100.0	13203	14.0	2.27	3.06	4.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: FRANKLIN
RAW COAL MOISTURE: 1.3 %
CUMULATIVE WASHABILITY DATA

BENCH: MIDDLE

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.9	4.3	14978	2.1	.04	1.09	1.5
FLOAT-1.40	76.0	79.0	13969	8.6	.06	1.07	1.5
FLOAT-1.60	97.0	98.5	13643	10.7	.17	1.14	1.7
TOTAL	100.0	100.0	13441	12.0	.23	1.18	1.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.9	6.6	14962	2.2	.05	1.33	1.8
FLOAT-1.40	77.9	80.9	13969	8.6	.07	.97	1.4
FLOAT-1.60	96.8	98.3	13659	10.6	.17	1.07	1.6
TOTAL	100.0	100.0	13457	11.9	.24	1.13	1.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.9	5.5	15086	1.4	.03	1.05	1.4
FLOAT-1.40	61.6	65.6	14326	6.3	.08	.99	1.4
FLOAT-1.60	92.8	95.5	13845	9.4	.13	1.10	1.6
TOTAL	100.0	100.0	13457	11.9	.26	1.20	1.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: FRANKLIN
RAW COAL MOISTURE: .7 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.5	6.3	14981	2.7	.55	1.59	2.1
FLOAT-1.40	69.2	73.6	14012	8.9	1.42	2.28	3.3
FLOAT-1.60	91.1	94.7	13684	11.0	2.01	2.85	4.2
TOTAL	100.0	100.0	13168	14.3	2.97	3.80	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.3	10.5	14950	2.9	.49	1.50	2.0
FLOAT-1.40	70.8	75.7	14137	8.1	1.21	2.10	3.0
FLOAT-1.60	90.6	94.3	13777	10.4	1.73	2.56	3.7
TOTAL	100.0	100.0	13230	13.9	2.87	3.74	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.4	13.1	15091	2.0	.20	1.23	1.6
FLOAT-1.40	61.5	67.5	14434	6.2	.71	1.70	2.4
FLOAT-1.60	87.3	92.0	13856	9.9	1.44	2.40	3.5
TOTAL	100.0	100.0	13152	14.4	2.95	4.01	6.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: FRANKLIN
RAW COAL MOISTURE: .8 %
CUMULATIVE WASHABILITY DATA

BENCH: FIRST

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	2.2	2.8	14675	2.9	.54	1.60	2.2
FLOAT-1.40	22.0	25.5	13361	11.7	1.21	2.11	3.2
FLOAT-1.60	80.5	86.3	12360	18.4	1.94	2.79	4.5
TOTAL	100.0	100.0	11524	24.0	2.23	3.13	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.0	6.3	14630	3.2	.55	1.79	2.4
FLOAT-1.40	31.5	37.1	13585	10.2	1.13	2.09	3.1
FLOAT-1.60	77.1	84.1	12569	17.0	1.72	2.54	4.0
TOTAL	100.0	100.0	11524	24.0	2.15	2.99	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	6.4	8.1	14541	3.8	.42	1.41	1.9
FLOAT-1.40	35.5	43.2	13943	7.8	.65	1.66	2.4
FLOAT-1.60	70.7	79.9	12957	14.4	.97	1.76	2.7
TOTAL	100.0	100.0	11464	24.4	2.13	2.95	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: FRANKLIN
RAW COAL MOISTURE: .6 %
CUMULATIVE WASHABILITY DATA

BENCH: SECOND

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.6	8.4	14872	3.4	.62	1.45	1.9
FLOAT-1.40	70.9	74.1	13995	9.1	1.49	2.28	3.3
FLOAT-1.60	95.2	96.7	13611	11.6	2.06	2.84	4.2
TOTAL	100.0	100.0	13396	13.0	2.60	3.36	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.9	12.1	14918	3.1	.54	1.39	1.9
FLOAT-1.40	72.7	76.4	14072	8.6	1.19	2.02	2.9
FLOAT-1.60	93.7	95.9	13703	11.0	1.68	2.49	3.6
TOTAL	100.0	100.0	13396	13.0	2.46	3.21	4.8
EPA STANDARD	*****.	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH [illegible]	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.1	13.5	14933	3.0	.45	1.37	1.8
FLOAT-1.40	63.5	67.4	14242	7.5	.71	1.56	2.2
FLOAT-1.60	91.5	94.6	13872	9.9	1.14	1.92	2.8
TOTAL	100.0	100.0	13411	12.9	2.58	3.37	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: FRANKLIN
RAW COAL MOISTURE: .8 %
CUMULATIVE WASHABILITY DATA

BENCH: THIRD

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.1	5.8	14806	3.1	.58	1.49	2.0
FLOAT-1.40	72.0	76.2	13761	10.0	1.46	2.33	3.4
FLOAT-1.60	91.6	95.0	13489	11.8	1.98	2.83	4.2
TOTAL	100.0	100.0	13004	15.0	2.50	3.34	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.1	10.2	14760	3.4	.56	1.50	2.0
FLOAT-1.40	69.0	73.1	13882	9.2	1.30	2.15	3.1
FLOAT-1.60	90.8	94.8	13685	10.5	1.82	2.54	3.7
TOTAL	100.0	100.0	13110	14.3	2.67	3.32	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.2	16.2	14912	2.4	.26	1.14	1.5
FLOAT-1.40	61.3	66.6	14170	7.3	.76	1.59	2.2
FLOAT-1.60	87.9	92.7	13746	10.1	1.14	1.86	2.7
TOTAL	100.0	100.0	13035	14.8	2.73	3.36	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: FRANKLIN
RAW COAL MOISTURE: .7 %
CUMULATIVE WASHABILITY DATA

BENCH: FOURTH

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	2.0	2.7	14623	2.8	.52	1.57	2.1
FLOAT-1.40	21.5	26.0	13235	12.1	2.00	2.78	4.2
FLOAT-1.60	80.7	89.6	12160	19.3	3.21	3.86	6.3
TOTAL	100.0	100.0	10951	27.4	3.37	3.99	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.9	5.2	14579	3.1	.58	1.62	2.2
FLOAT-1.40	28.2	34.4	13414	10.9	1.54	2.44	3.6
FLOAT-1.60	77.1	86.4	12309	18.3	2.77	3.46	5.6
TOTAL	100.0	100.0	10981	27.2	3.47	4.09	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.4	9.7	14594	3.0	.38	1.34	1.8
FLOAT-1.40	30.4	37.5	13758	8.6	.92	1.91	2.8
FLOAT-1.60	70.3	80.7	12787	15.1	1.26	2.01	3.1
TOTAL	100.0	100.0	11145	26.1	3.32	3.94	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: BARTON
RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.8	4.3	14911	2.1	.20	1.09	1.5
FLOAT-1.40	60.0	64.5	14270	6.3	.30	1.10	1.5
FLOAT-1.60	94.1	96.4	13598	10.7	.62	1.38	2.0
TOTAL	100.0	100.0	13278	12.8	.88	1.65	2.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	6.7	7.5	14881	2.3	.19	1.06	1.4
FLOAT-1.40	62.5	67.3	14316	6.0	.23	1.05	1.5
FLOAT-1.60	92.1	94.9	13690	10.1	.40	1.19	1.7
TOTAL	100.0	100.0	13293	12.7	.85	1.63	2.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	6.7	7.6	14896	2.2	.18	1.14	1.5
FLOAT-1.40	61.3	67.0	14453	5.1	.21	1.04	1.4
FLOAT-1.60	88.7	93.0	13858	9.0	.33	1.13	1.6
TOTAL	100.0	100.0	13216	13.2	.94	1.72	2.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: BARTON
RAW COAL MOISTURE: 5.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.1	.1	13767	3.4	.02	.51	.7
FLOAT-1.40	31.9	35.3	13626	4.4	.02	.41	.6
FLOAT-1.60	88.9	92.6	12820	10.1	.03	.39	.6
TOTAL	100.0	100.0	12312	13.7	.03	.39	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	.4	.4	13739	3.6	.01	.48	.7
FLOAT-1.40	35.8	39.7	13668	4.1	.01	.43	.6
FLOAT-1.60	88.4	92.2	12834	10.0	.01	.35	.5
TOTAL	100.0	100.0	12312	13.7	.02	.34	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	32.1	36.0	13781	3.3	.01	.50	.7
FLOAT-1.60	84.5	89.3	12990	8.9	.01	.39	.6
TOTAL	100.0	100.0	12298	13.8	.02	.39	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: HARLEM
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.0	10.4	14991	2.9	.47	1.39	1.9
FLOAT-1.40	59.8	65.6	14191	8.1	1.19	2.04	2.9
FLOAT-1.60	85.3	90.6	13745	11.0	1.66	2.61	3.8
TOTAL	100.0	100.0	12944	16.2	2.28	3.16	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.6	12.5	14991	2.9	.41	1.26	1.7
FLOAT-1.40	57.9	65.1	14268	7.6	1.00	1.78	2.5
FLOAT-1.60	78.9	85.9	13822	10.5	1.61	2.24	3.2
TOTAL	100.0	100.0	12698	17.8	2.46	3.13	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.7	18.2	14991	2.9	.35	1.19	1.6
FLOAT-1.40	57.0	63.9	14514	6.0	.64	1.47	2.0
FLOAT-1.60	82.7	89.2	13960	9.6	1.05	1.78	2.6
TOTAL	100.0	100.0	12944	16.2	2.33	3.06	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: BAKERSTOWN
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	6.2	7.8	15006	2.1	.24	1.09	1.5
FLOAT-1.40	40.3	47.3	14089	8.1	.93	1.72	2.4
FLOAT-1.60	80.5	86.7	12911	15.8	1.29	1.97	3.1
TOTAL	100.0	100.0	11993	21.8	2.00	2.61	4.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.6	11.7	15006	2.1	.26	1.08	1.4
FLOAT-1.40	47.0	54.4	14211	7.3	.74	1.54	2.2
FLOAT-1.60	82.9	88.8	13156	14.2	1.11	1.82	2.8
TOTAL	100.0	100.0	12284	19.9	1.93	2.53	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.7	13.3	14976	2.3	.19	1.06	1.4
FLOAT-1.40	36.8	44.3	14456	5.7	.55	1.38	1.9
FLOAT-1.60	72.8	81.8	13492	12.0	.88	1.65	2.4
TOTAL	100.0	100.0	12009	21.7	2.06	2.72	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: LOWER BAKERSTOWN
RAW COAL MOISTURE: .8 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.4	13.3	15088	2.2	.24	.99	1.3
FLOAT-1.40	50.5	56.8	14513	5.9	.65	1.28	1.8
FLOAT-1.60	74.4	80.4	13938	9.6	2.38	2.94	4.2
TOTAL	100.0	100.0	12897	16.3	5.44	6.16	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.6	21.6	15103	2.1	.24	.85	1.1
FLOAT-1.40	62.7	70.3	14606	5.3	.61	1.26	1.7
FLOAT-1.60	76.4	83.6	14249	7.6	1.29	1.96	2.8
TOTAL	100.0	100.0	13021	15.5	5.30	6.11	9.4
EPA STANDARD	25.5	29.3	15041	2.6	.28	.90	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.5	15.8	15165	1.7	.12	.70	.9
FLOAT-1.40	62.5	71.0	14761	4.3	.45	1.05	1.4
FLOAT-1.60	79.0	88.0	14466	6.2	.73	1.30	1.8
TOTAL	100.0	100.0	12990	15.7	5.45	6.12	9.4
EPA STANDARD	44.5	51.0	14941	3.2	.30	.90	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: LOWER BAKERSTOWN
RAW COAL MOISTURE: .9 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.3	11.2	15220	1.9	.10	.67	.9
FLOAT-1.40	75.7	79.4	14701	5.3	.66	1.15	1.6
FLOAT-1.60	92.9	95.3	14381	7.4	1.15	1.62	2.3
TOTAL	100.0	100.0	14015	9.8	2.17	2.62	3.7
EPA STANDARD	46.8	49.6	14978	3.7	.37	.90	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.4	15.6	15250	1.7	.09	.72	.9
FLOAT-1.40	77.2	81.1	14793	4.7	.37	1.14	1.5
FLOAT-1.60	91.7	94.6	14518	6.5	.69	1.44	2.0
TOTAL	100.0	100.0	14076	9.4	2.10	2.86	4.1
EPA STANDARD	47.4	50.3	15054	3.1	.19	.90	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.1	12.1	15296	1.4	.04	.63	.8
FLOAT-1.40	73.9	78.3	14915	3.9	.22	.86	1.2
FLOAT-1.60	91.3	94.9	14625	5.8	.38	1.02	1.4
TOTAL	100.0	100.0	14076	9.4	2.20	2.78	4.0
EPA STANDARD	79.2	83.6	14859	4.3	.25	.89	1.20

STATE: MARYLAND
COUNTY: ALLEGANY

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.2	10.8	14838	2.6	.24	1.14	1.5
FLOAT-1.40	33.8	37.0	13779	9.6	.87	1.66	2.4
FLOAT-1.60	94.4	96.2	12826	15.9	1.50	2.24	3.5
TOTAL	100.0	100.0	12584	17.5	1.98	2.68	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.5	12.5	14763	3.1	.20	1.12	1.5
FLOAT-1.40	43.3	48.0	13810	9.4	.52	1.35	2.0
FLOAT-1.60	88.7	92.0	12917	15.3	1.03	1.78	2.8
TOTAL	100.0	100.0	12448	18.4	2.13	2.82	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.3	15.6	14793	2.9	.24	1.14	1.5
FLOAT-1.40	46.5	52.0	14097	7.5	.31	1.20	1.7
FLOAT-1.60	87.1	91.1	13189	13.5	.50	1.31	2.0
TOTAL	100.0	100.0	12615	17.3	1.99	2.78	4.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.5	10.1	14922	2.8	.19	.95	1.3
FLOAT-1.40	68.5	77.1	14172	7.7	.79	1.46	2.1
FLOAT-1.60	83.0	91.5	13881	9.6	1.12	1.80	2.6
TOTAL	100.0	100.0	12595	18.0	1.49	2.10	3.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.7	13.8	14876	3.1	.23	.97	1.3
FLOAT-1.40	69.8	78.6	14202	7.5	.69	1.29	1.8
FLOAT-1.60	83.7	92.4	13927	9.3	.97	1.58	2.3
TOTAL	100.0	100.0	12610	17.9	1.40	1.94	3.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.3	17.0	14998	2.3	.15	.73	1.0
FLOAT-1.40	59.2	67.8	14447	5.9	.37	1.17	1.6
FLOAT-1.60	80.8	89.8	14018	8.7	.71	1.49	2.1
TOTAL	100.0	100.0	12610	17.9	1.45	2.11	3.3
EPA STANDARD	32.3	37.7	14805	3.6	.20	.89	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.3	8.4	15068	2.0	.03	.71	.9
FLOAT-1.40	67.8	73.8	14273	7.2	.16	.75	1.1
FLOAT-1.60	89.3	94.0	13799	10.3	.31	.90	1.3
TOTAL	100.0	100.0	13111	14.8	.55	1.13	1.7
EPA STANDARD	80.4	85.7	13994	9.0	.27	.83	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.5	9.6	14915	3.0	.15	.79	1.1
FLOAT-1.40	69.0	75.2	14349	6.7	.16	.75	1.0
FLOAT-1.60	88.6	93.5	13906	9.6	.23	.82	1.2
TOTAL	100.0	100.0	13172	14.4	.56	1.14	1.7
EPA STANDARD	91.0	95.8	13878	10.0	.24	.83	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.7	11.1	15129	1.6	.03	.61	.8
FLOAT-1.40	62.4	66.8	14548	5.4	.09	.67	.9
FLOAT-1.60	86.8	92.0	14044	8.7	.13	.72	1.0
TOTAL	100.0	100.0	13202	14.2	.55	1.09	1.7
EPA STANDARD	90.5	94.5	13809	12.7	.22	.81	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.6	23.0	15016	2.8	.03	.54	.7
FLOAT-1.40	70.6	76.6	14592	5.6	.19	.69	.9
FLOAT-1.60	88.9	93.6	14167	8.4	.25	.73	1.0
TOTAL	100.0	100.0	13455	13.1	.49	.95	1.4
EPA STANDARD	93.8	96.4	13851	12.1	.36	.82	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.3	26.9	15061	2.5	.03	.59	.8
FLOAT-1.40	73.4	78.9	14637	5.3	.09	.61	.8
FLOAT-1.60	90.4	94.4	14228	8.0	.13	.64	.9
TOTAL	100.0	100.0	13622	12.0	.47	.96	1.4
EPA STANDARD	96.1	97.7	13871	10.4	.32	.81	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.1	28.9	15077	2.4	.03	.54	.7
FLOAT-1.40	67.5	73.0	14728	4.7	.03	.61	.8
FLOAT-1.60	90.0	94.4	14289	7.6	.04	.57	.8
TOTAL	100.0	100.0	13622	12.0	.50	1.00	1.5
EPA STANDARD	96.0	97.8	13889	10.2	.15	.94	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .9 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.6	5.5	14771	2.3	.09	.79	1.1
FLOAT-1.40	44.8	50.8	13900	8.1	.32	.97	1.4
FLOAT-1.60	74.2	80.7	13315	12.0	1.23	1.80	2.7
TOTAL	100.0	100.0	12249	19.1	4.93	5.50	9.0
EPA STANDARD	22.2	25.5	14423	4.8	.18	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.4	6.3	14321	5.3	.29	.96	1.3
FLOAT-1.40	51.2	58.2	13900	8.1	.44	1.07	1.5
FLOAT-1.60	75.0	82.3	13405	11.4	.81	1.42	2.1
TOTAL	100.0	100.0	12219	19.3	4.91	5.55	9.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.2	10.0	14861	1.7	.03	.68	.9
FLOAT-1.40	49.0	57.5	14230	5.9	.18	.82	1.2
FLOAT-1.60	76.2	85.3	13585	10.2	.39	1.02	1.5
TOTAL	100.0	100.0	12129	19.9	5.17	5.86	9.7
EPA STANDARD	55.0	64.2	14143	6.6	.21	.85	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .8 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	2.6	3.0	15146	1.8	.06	.77	1.0
FLOAT-1.40	68.4	74.3	14319	7.2	.69	1.31	1.8
FLOAT-1.60	87.8	93.3	14013	9.2	1.15	1.78	2.5
TOTAL	100.0	100.0	13186	14.6	1.83	2.41	3.7
EPA STANDARD	21.5	23.7	14960	3.3	.21	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.3	10.6	15177	1.6	.06	.81	1.1
FLOAT-1.40	71.4	77.6	14457	6.3	.49	1.17	1.6
FLOAT-1.60	87.7	93.3	14166	8.2	.87	1.54	2.2
TOTAL	100.0	100.0	13309	13.8	1.78	2.37	3.6
EPA STANDARD	28.4	31.4	15003	3.0	.17	.90	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.9	13.7	15131	1.9	.06	.75	1.0
FLOAT-1.40	67.2	74.4	14564	5.6	.28	.94	1.3
FLOAT-1.60	85.4	92.0	14166	8.2	.54	1.26	1.8
TOTAL	100.0	100.0	13156	14.8	1.92	2.55	3.9
EPA STANDARD	54.0	60.0	14736	4.6	.22	.88	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.3	28.1	14918	3.4	.10	.61	.8
FLOAT-1.40	77.4	86.4	14422	6.6	.37	.89	1.2
FLOAT-1.60	86.0	94.9	14252	7.7	.69	1.20	1.7
TOTAL	100.0	100.0	12920	16.3	1.18	1.62	2.5
EPA STANDARD	74.7	83.4	14463	6.4	.35	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.2	43.7	14933	3.3	.08	.60	.8
FLOAT-1.40	75.4	85.8	14469	6.3	.29	.80	1.1
FLOAT-1.60	84.1	94.3	14267	7.6	.53	1.04	1.5
TOTAL	100.0	100.0	12719	17.6	1.15	1.57	2.5
EPA STANDARD	81.5	92.3	14415	6.9	.35	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.6	43.9	14980	3.0	.09	.64	.9
FLOAT-1.40	74.3	84.3	14562	5.7	.23	.77	1.1
FLOAT-1.60	84.6	94.3	14298	7.4	.44	.97	1.4
TOTAL	100.0	100.0	12827	16.9	1.23	1.67	2.6
EPA STANDARD	79.2	89.1	14436	6.8	.33	.86	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.2	4.9	14862	3.3	.34	1.09	1.5
FLOAT-1.40	64.4	72.1	14202	7.6	.61	1.31	1.8
FLOAT-1.60	80.2	87.8	13880	9.7	1.21	1.90	2.7
TOTAL	100.0	100.0	12683	17.5	3.57	4.21	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.7	5.6	14984	2.5	.22	.83	1.1
FLOAT-1.40	69.4	78.0	14233	7.4	.58	1.22	1.7
FLOAT-1.60	79.6	88.0	14002	8.9	.81	1.44	2.1
TOTAL	100.0	100.0	12668	17.6	3.52	4.02	6.3
EPA STANDARD	18.4	21.1	14870	3.4	.27	.89	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.5	11.3	15015	2.3	.23	1.02	1.4
FLOAT-1.40	60.0	68.6	14447	6.0	.40	1.06	1.5
FLOAT-1.60	80.6	89.8	14079	8.4	.61	1.25	1.8
TOTAL	100.0	100.0	12637	17.8	3.67	4.21	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: UPPER KITTANNING
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.7	14.6	14659	3.1	.07	.67	.9
FLOAT-1.40	72.5	78.9	13903	8.1	.09	.64	.9
FLOAT-1.60	90.4	95.3	13464	11.0	.07	.66	1.0
FLOAT-1.90	95.4	98.7	13207	12.7	.07	.66	1.0
TOTAL	100.0	100.0	12768	15.6	.13	.70	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.3	15.3	14689	2.9	.10	.68	.9
FLOAT-1.40	64.0	70.6	14099	6.8	.11	.68	1.0
FLOAT-1.60	88.9	94.1	13525	10.6	.08	.65	1.0
FLOAT-1.90	94.9	98.3	13237	12.5	.08	.64	1.0
TOTAL	100.0	100.0	12784	15.5	.14	.69	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.9	11.4	14674	3.0	.14	.62	.8
FLOAT-1.40	55.9	62.5	14281	5.6	.11	.69	1.0
FLOAT-1.60	85.9	92.0	13676	9.6	.07	.66	1.0
FLOAT-1.90	94.1	97.9	13283	12.2	.07	.66	1.0
TOTAL	100.0	100.0	12768	15.6	.14	.73	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: UPPER KITTANNING
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.4	6.2	15164	1.8	.08	.76	1.0
FLOAT-1.40	69.1	75.3	14424	6.6	.56	1.23	1.7
FLOAT-1.60	87.2	93.1	14132	8.5	1.22	1.94	2.7
TOTAL	100.0	100.0	13239	14.3	2.83	3.55	5.4
EPA STANDARD	27.5	30.3	14956	3.4	.22	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.0	9.1	15133	2.0	.06	.91	1.2
FLOAT-1.40	74.5	80.8	14471	6.3	.44	1.20	1.7
FLOAT-1.60	86.5	92.5	14270	7.6	.83	1.60	2.2
TOTAL	100.0	100.0	13346	13.6	2.71	3.53	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.2	8.2	15133	2.0	.06	1.05	1.4
FLOAT-1.40	67.4	73.8	14640	5.2	.32	1.21	1.7
FLOAT-1.60	87.0	93.3	14332	7.2	.66	1.33	1.9
TOTAL	100.0	100.0	13362	13.5	2.96	3.69	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.1	22.6	14635	4.1	.09	.80	1.1
FLOAT-1.40	76.1	82.3	14100	7.6	.39	1.08	1.5
FLOAT-1.60	88.8	93.9	13779	9.7	.63	1.30	1.9
TOTAL	100.0	100.0	13030	14.6	1.20	1.86	2.9
EPA STANDARD	37.8	41.8	14505	5.0	.16	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.6	35.7	14666	3.9	.09	.74	1.0
FLOAT-1.40	76.4	83.7	14238	6.7	.24	.93	1.3
FLOAT-1.60	87.2	93.6	13948	8.6	.43	1.09	1.6
TOTAL	100.0	100.0	13000	14.8	1.18	1.80	2.8
EPA STANDARD	64.4	71.0	14391	5.8	.18	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.4	35.8	14773	3.2	.09	.77	1.0
FLOAT-1.40	71.6	79.6	14421	5.5	.12	.79	1.1
FLOAT-1.60	86.1	93.1	14024	8.1	.33	1.04	1.5
TOTAL	100.0	100.0	12969	15.0	1.23	1.90	2.9
EPA STANDARD	75.5	83.3	14314	6.2	.18	.84	1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 6.0 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	24.7	27.8	13422	3.1	.01	.51	.8
FLOAT-1.60	87.2	90.4	12375	10.7	.01	.45	.7
TOTAL	100.0	100.0	11935	13.9	.01	.44	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	26.5	29.7	13477	2.7	.01	.52	.8
FLOAT-1.60	84.7	88.7	12582	9.2	.02	.41	.7
TOTAL	100.0	100.0	12017	13.3	.02	.39	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	19.3	21.7	13532	2.3	.01	.52	.8
FLOAT-1.60	79.9	84.7	12761	7.9	.01	.46	.7
TOTAL	100.0	100.0	12031	13.2	.02	.43	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: MARYLAND
COUNTY: GARRETT

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 5.0 %

BENCH: BOTTOM

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	27.1	29.9	13578	5.4	.01	.55	.8
FLOAT-1.60	88.7	91.5	12674	11.7	.01	.49	.8
TOTAL	100.0	100.0	12287	14.4	.02	.46	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	32.8	36.4	13635	5.0	.01	.55	.8
FLOAT-1.60	85.4	89.0	12803	10.8	.01	.49	.8
TOTAL	100.0	100.0	12287	14.4	.03	.45	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	0.0	*****	*****	*****	*****	*****	****
FLOAT-1.40	29.7	33.6	13836	3.6	.01	.52	.8
FLOAT-1.60	81.4	86.4	12990	9.5	.01	.52	.8
TOTAL	100.0	100.0	12244	14.7	.03	.51	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: MISSOURI
COUNTY: BOONE

COALBED: BEVIER
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.2	49.9	13612	5.2	.90	3.06	4.5
FLOAT-1.40	67.2	77.9	13325	7.2	1.21	3.34	5.0
FLOAT-1.60	80.2	90.6	12995	9.5	1.71	3.81	5.9
FLOAT-1.90	87.2	95.7	12621	12.1	2.13	4.20	6.7
TOTAL	100.0	100.0	11501	19.9	2.93	4.88	8.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.4	46.3	13856	3.5	.64	2.93	4.2
FLOAT-1.40	64.8	76.8	13627	5.1	.87	3.08	4.5
FLOAT-1.60	78.0	90.1	13282	7.5	1.22	3.40	5.1
FLOAT-1.90	83.8	94.5	12966	9.7	1.53	3.70	5.7
TOTAL	100.0	100.0	11501	19.9	2.82	4.82	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.1	28.4	14014	2.4	.53	2.70	3.9
FLOAT-1.40	56.5	68.1	13742	4.3	.77	2.91	4.2
FLOAT-1.60	74.8	87.4	13325	7.2	1.06	3.17	4.8
FLOAT-1.90	81.8	93.2	12995	9.5	1.30	3.41	5.2
TOTAL	100.0	100.0	11401	20.6	2.92	4.96	8.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MISSOURI
COUNTY: MACON

COALBED: BEVIER
RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.2	68.2	13074	6.0	.73	3.19	4.9
FLOAT-1.40	74.0	85.8	12935	7.0	.97	3.39	5.2
FLOAT-1.60	81.4	93.0	12741	8.4	1.29	3.68	5.8
FLOAT-1.90	87.2	96.9	12393	10.9	1.64	3.95	6.4
TOTAL	100.0	100.0	11155	19.8	2.10	4.17	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.9	61.5	13325	4.2	.50	3.14	4.7
FLOAT-1.40	73.9	86.9	13213	5.0	.66	3.28	5.0
FLOAT-1.60	79.0	91.9	13074	6.0	.81	3.41	5.2
FLOAT-1.90	83.5	95.5	12852	7.6	.94	3.48	5.4
TOTAL	100.0	100.0	11238	19.2	1.95	4.16	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.2	47.2	13436	3.4	.40	3.08	4.6
FLOAT-1.40	71.2	84.4	13227	4.9	.58	3.24	4.9
FLOAT-1.60	78.3	91.6	13047	6.2	.73	3.34	5.1
FLOAT-1.90	81.2	93.8	12880	7.4	.82	3.40	5.3
TOTAL	100.0	100.0	11155	19.8	2.08	4.34	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MISSOURI
COUNTY: RANDOLPH

COALBED: BEVIER
RAW COAL MOISTURE: 5.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.6	51.4	13403	4.1	.65	3.11	4.6
FLOAT-1.40	56.7	75.5	13062	6.5	1.31	3.73	5.7
FLOAT-1.60	70.0	90.6	12693	9.1	2.23	4.00	6.3
TOTAL	100.0	100.0	9812	29.4	3.10	4.97	10.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.4	47.9	13545	3.1	.53	2.98	4.4
FLOAT-1.40	54.1	73.8	13261	5.1	1.10	3.56	5.4
FLOAT-1.60	67.9	89.3	12792	8.4	1.93	4.26	6.7
TOTAL	100.0	100.0	9727	30.0	3.09	4.91	10.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.0	40.3	13658	2.3	.34	2.93	4.3
FLOAT-1.40	49.5	67.8	13459	3.7	.56	3.20	4.8
FLOAT-1.60	63.2	84.6	13147	5.9	1.39	3.62	5.5
TOTAL	100.0	100.0	9826	29.3	3.00	4.83	9.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MISSOURI
COUNTY: VERNON

COALBED: CROWEBURG
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.2	44.1	13920	5.2	1.02	2.47	3.5
FLOAT-1.40	71.5	78.7	13625	7.2	1.49	2.93	4.3
FLOAT-1.60	85.3	91.6	13299	9.4	1.86	3.28	4.9
TOTAL	100.0	100.0	12383	15.6	2.99	4.37	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.2	62.1	14068	4.2	1.02	2.35	3.3
FLOAT-1.40	76.7	85.0	13861	5.6	1.45	2.79	4.0
FLOAT-1.60	83.4	91.4	13699	6.7	1.72	3.07	4.5
TOTAL	100.0	100.0	12501	14.8	2.97	4.25	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.5	54.3	14157	3.6	.84	2.21	3.1
FLOAT-1.40	74.5	83.7	13905	5.3	1.31	2.68	3.9
FLOAT-1.60	81.8	90.9	13758	6.3	1.55	2.92	4.2
TOTAL	100.0	100.0	12383	15.6	2.95	4.29	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MISSOURI
COUNTY: VERNON

COALBED: FLEMING
RAW COAL MOISTURE: 2.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.5	28.6	13899	4.7	1.63	3.45	5.0
FLOAT-1.40	78.6	82.3	13485	7.6	2.40	4.21	6.2
FLOAT-1.60	92.0	94.9	13285	9.0	3.18	5.04	7.6
TOTAL	100.0	100.0	12885	11.8	4.29	6.17	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.7	41.8	13985	4.1	1.46	3.42	4.9
FLOAT-1.40	79.4	83.5	13628	6.6	2.26	4.27	6.3
FLOAT-1.60	89.7	93.3	13471	7.7	2.90	4.95	7.3
TOTAL	100.0	100.0	12957	11.3	4.11	6.13	9.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.8	47.8	14085	3.4	1.09	3.11	4.4
FLOAT-1.40	75.8	80.9	13771	5.6	1.81	3.93	5.7
FLOAT-1.60	87.6	92.3	13585	6.9	2.42	4.53	6.7
TOTAL	100.0	100.0	12900	11.7	4.16	6.19	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MISSOURI
COUNTY: HENRY

COALBED: TEBO
RAW COAL MOISTURE: 4.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU.
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.9	43.1	13162	6.3	.50	3.11	4.7
FLOAT-1.40	70.1	80.4	12923	8.0	.92	3.57	5.5
FLOAT-1.60	80.3	90.6	12713	9.5	1.21	3.85	6.1
TOTAL	100.0	100.0	11267	19.8	2.88	5.28	9.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.2	49.4	13204	6.0	.54	3.10	4.7
FLOAT-1.40	69.8	80.5	13007	7.4	.86	3.46	5.3
FLOAT-1.60	79.6	90.3	12797	8.9	1.16	3.73	5.8
TOTAL	100.0	100.0	11281	19.7	2.94	5.30	9.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.4	35.7	13274	5.5	.55	3.22	4.9
FLOAT-1.40	64.8	75.2	13106	6.7	.60	3.31	5.1
FLOAT-1.60	78.8	89.5	12825	8.7	1.04	3.62	5.6
TOTAL	100.0	100.0	11295	19.6	2.88	5.40	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MISSOURI
COUNTY: HENRY

COALBED: TEBO
RAW COAL MOISTURE: 1.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.2	45.9	13200	7.8	.48	2.38	3.6
FLOAT-1.40	75.0	81.6	12900	9.9	.81	2.65	4.1
FLOAT-1.60	85.3	91.5	12713	11.2	1.08	2.86	4.5
FLOAT-1.90	90.3	95.4	12527	12.5	1.29	3.02	4.8
TOTAL	100.0	100.0	11854	17.2	3.23	4.87	8.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.9	53.9	13415	6.3	.43	2.37	3.5
FLOAT-1.40	74.0	81.5	13129	8.3	.66	2.57	3.9
FLOAT-1.60	84.3	91.4	12928	9.7	.93	2.78	4.3
FLOAT-1.90	89.1	95.2	12742	11.0	1.10	2.90	4.6
TOTAL	100.0	100.0	11926	16.7	2.80	4.51	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.1	55.9	13501	5.7	.35	2.30	3.4
FLOAT-1.40	69.5	78.0	13300	7.1	.51	2.43	3.7
FLOAT-1.60	81.7	90.1	13071	8.7	.71	2.58	3.9
FLOAT-1.90	86.3	93.9	12900	9.9	.84	2.65	4.1
TOTAL	100.0	100.0	11854	17.2	2.96	4.65	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MISSOURI
COUNTY: BARTON

COALBED: KNIFETON
RAW COAL MOISTURE: 2.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	1.8	2.0	14238	4.7	.94	1.94	2.7
FLOAT-1.40	70.0	73.1	13178	12.0	2.38	3.36	5.1
FLOAT-1.60	94.8	97.1	12916	13.8	3.02	3.97	6.1
TOTAL	100.0	100.0	12611	15.9	3.66	4.58	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.3	9.4	14253	4.6	.87	1.34	2.6
FLOAT-1.40	69.0	73.1	13294	11.2	1.89	2.84	4.3
FLOAT-1.60	93.2	96.1	12945	13.6	2.56	3.50	5.4
TOTAL	100.0	100.0	12553	16.3	3.51	4.40	7.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.0	17.1	14282	4.4	.79	1.84	2.6
FLOAT-1.40	65.3	70.2	13497	9.8	1.54	2.62	3.9
FLOAT-1.60	88.4	92.4	13120	12.4	2.04	3.10	4.7
TOTAL	100.0	100.0	12553	16.3	3.65	4.68	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MISSOURI
COUNTY: BARTON

COALBED: ROWE
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.8	10.8	14045	4.9	1.19	2.37	3.4
FLOAT-1.40	54.3	63.0	13292	10.0	2.87	4.10	6.2
FLOAT-1.60	82.9	93.3	12879	12.8	4.03	5.27	8.2
TOTAL	100.0	100.0	11448	22.5	4.70	5.83	10.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.4	27.5	14119	4.4	.94	2.28	3.2
FLOAT-1.40	59.6	70.1	13514	8.5	2.11	3.40	5.0
FLOAT-1.60	80.5	91.9	13115	11.2	3.01	4.27	6.5
TOTAL	100.0	100.0	11492	22.2	4.21	5.34	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.4	25.3	14281	3.3	.68	1.96	2.7
FLOAT-1.40	54.4	64.8	13706	7.2	1.55	2.85	4.2
FLOAT-1.60	75.4	87.0	13278	10.1	2.42	3.71	5.6
TOTAL	100.0	100.0	11507	22.1	4.72	5.81	10.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: MONTANA
COUNTY: ROSEBUD

COALBED: MCKAY
RAW COAL MOISTURE: 20.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.3	66.7	12184	5.0	.15	.39	.6
FLOAT-1.40	91.0	93.4	12049	5.9	.15	.41	.7
FLOAT-1.60	96.2	98.3	11990	6.3	.15	.42	.7
TOTAL	100.0	100.0	11736	8.0	1.20	1.49	2.5
EPA STANDARD	97.2	98.7	11921	6.8	.23	.68	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.5	57.9	12347	3.9	.11	.35	.6
FLOAT-1.40	83.9	86.8	12243	4.6	.11	.36	.6
FLOAT-1.60	96.2	98.4	12109	5.5	.12	.37	.6
TOTAL	100.0	100.0	11841	7.3	1.14	1.45	2.4
EPA STANDARD	97.4	98.9	12023	6.1	.40	.66	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.3	27.9	12437	3.3	.06	.59	.9
FLOAT-1.40	74.3	78.1	12318	4.1	.07	.46	.7
FLOAT-1.60	95.2	98.1	12079	5.7	.07	.48	.8
TOTAL	100.0	100.0	11722	8.1	1.26	1.67	2.8
EPA STANDARD	96.1	98.5	12009	6.2	.12	.66	1.20

STATE: MONTANA
COUNTY: ROSEBUD

COALBED: ROSEBUD
RAW COAL MOISTURE: 17.9 %

BENCH: TOP

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.4	68.7	12138	5.7	.05	.44	.7
FLOAT-1.40	92.3	94.2	11973	6.8	.06	.44	.7
FLOAT-1.60	98.0	99.1	11867	7.5	.06	.45	.8
TOTAL	100.0	100.0	11732	8.4	.35	.75	1.3
EPA STANDARD	99.7	99.9	11752	8.3	.27	.70	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.2	51.1	12304	4.6	.05	.51	.8
FLOAT-1.40	83.8	86.2	12198	5.3	.07	.52	.9
FLOAT-1.60	97.8	99.0	12003	6.6	.07	.54	.9
TOTAL	100.0	100.0	11852	7.6	.33	.80	1.3
EPA STANDARD	99.3	99.7	11902	7.3	.19	.70	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.6	13.4	12319	4.5	.12	.62	1.0
FLOAT-1.40	78.2	81.8	12168	5.5	.11	.57	.9
FLOAT-1.60	95.9	98.5	11943	7.0	.12	.58	1.0
TOTAL	100.0	100.0	11627	9.1	.40	.90	1.5
EPA STANDARD	97.5	99.1	11817	7.8	.21	.67	1.20

STATE: MONTANA
COUNTY: ROSEBUD

COALBED: ROSEBUD
RAW COAL MOISTURE: 14.0 %
CUMULATIVE WASHABILITY DATA

BENCH: MIDDLE

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.0	65.7	12213	5.3	.03	.51	.8
FLOAT-1.40	88.9	91.7	12083	6.2	.03	.51	.8
FLOAT-1.60	97.5	99.2	11910	7.4	.04	.50	.8
TOTAL	100.0	100.0	11709	8.8	.23	.70	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.0	43.8	12314	4.6	.04	.65	1.1
FLOAT-1.40	76.8	79.6	12242	5.1	.04	.58	.9
FLOAT-1.60	96.5	98.4	12040	6.5	.04	.55	.9
TOTAL	100.0	100.0	11810	8.1	.22	.73	1.2
EPA STANDARD	99.6	99.8	11836	7.9	.18	.72	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.6	16.3	12300	4.7	.05	.50	.8
FLOAT-1.40	78.7	82.0	12271	4.9	.08	.53	.9
FLOAT-1.60	95.7	98.2	12083	6.2	.09	.55	.9
TOTAL	100.0	100.0	11781	8.3	.33	.80	1.4
EPA STANDARD	98.5	99.3	11888	7.6	.22	.70	1.20

STATE: MONTANA
COUNTY: ROSEBUD

COALBED: ROSEBUD
RAW COAL MOISTURE: 15.0 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.2	67.4	12132	5.1	.21	.46	.8
FLOAT-1.40	84.4	89.2	12011	6.0	.21	.51	.8
FLOAT-1.60	92.1	96.0	11850	7.2	.22	.53	.9
TOTAL	100.0	100.0	11368	10.8	1.39	1.72	3.0
EPA STANDARD	93.2	96.6	11781	7.7	.30	.67	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.9	52.3	12279	4.0	.12	.61	1.0
FLOAT-1.40	81.2	85.9	12145	5.0	.13	.63	1.0
FLOAT-1.60	92.3	96.4	11984	6.2	.14	.65	1.1
TOTAL	100.0	100.0	11475	10.0	1.25	1.75	3.1
EPA STANDARD	92.8	96.6	11954	8.9	.17	.70	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.7	24.5	12333	3.6	.07	.40	.6
FLOAT-1.40	76.1	81.6	12226	4.4	.07	.44	.7
FLOAT-1.60	91.1	95.9	12011	6.0	.09	.44	.7
TOTAL	100.0	100.0	11408	10.5	1.39	1.78	3.1
EPA STANDARD	92.8	96.7	11893	6.9	.72	.49	1.20

STATE: MONTANA
COUNTY: ROSEBUD

COALBED: ROSEBUD
RAW COAL MOISTURE: 18.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.3	61.8	12041	5.9	.06	.54	.9
FLOAT-1.40	88.8	91.5	11917	6.8	.07	.55	.9
FLOAT-1.60	96.3	98.1	11780	7.8	.09	.56	1.0
TOTAL	100.0	100.0	11560	9.4	.53	1.01	1.7
EPA STANDARD	97.5	98.7	11711	8.3	.26	.67	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.8	52.2	12178	4.9	.06	.48	.8
FLOAT-1.40	83.8	87.1	12068	5.7	.08	.51	.8
FLOAT-1.60	95.4	97.9	11917	6.8	.09	.52	.9
TOTAL	100.0	100.0	11615	9.0	.54	.98	1.7
EPA STANDARD	97.2	98.7	11796	7.7	.24	.67	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.7	20.9	12178	4.9	.08	.48	.8
FLOAT-1.40	75.1	79.1	12082	5.6	.10	.52	.9
FLOAT-1.60	94.5	97.8	11876	7.1	.10	.52	.9
TOTAL	100.0	100.0	11478	10.0	.46	.88	1.5
EPA STANDARD	97.2	98.9	11680	8.5	.19	.61	1.20

STATE: NEW MEXICO
COUNTY: MCKINLEY

COALBED: BLUE
RAW COAL MOISTURE: 7.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.6	71.8	12792	4.5	.08	.45	.7
FLOAT-1.40	76.9	83.3	12668	5.4	.07	.44	.7
FLOAT-1.60	90.8	94.4	12157	9.1	.08	.43	.7
TOTAL	100.0	100.0	11688	12.5	.13	.48	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.9	58.1	12847	4.1	.06	.42	.7
FLOAT-1.40	69.2	75.6	12792	4.5	.06	.42	.7
FLOAT-1.60	87.6	92.7	12378	7.5	.06	.43	.7
TOTAL	100.0	100.0	11702	12.4	.13	.48	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.4	28.3	13027	2.8	.05	.50	.8
FLOAT-1.40	59.5	66.0	12958	3.3	.04	.51	.8
FLOAT-1.60	86.5	92.2	12447	7.0	.04	.49	.8
TOTAL	100.0	100.0	11674	12.6	.11	.55	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: NEW MEXICO
COUNTY: MCKINLEY

COALBED: BLUE
RAW COAL MOISTURE: 11.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	85.8	86.9	13257	3.5	.04	.58	.9
FLOAT-1.40	98.6	98.9	13139	4.3	.05	.58	.9
FLOAT-1.60	99.7	99.8	13110	4.5	.05	.58	.9
TOTAL	100.0	100.0	13095	4.6	.06	.59	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	73.8	75.0	13316	3.1	.10	.54	.8
FLOAT-1.40	95.9	96.7	13198	3.9	.10	.54	.8
FLOAT-1.60	99.5	99.7	13124	4.4	.10	.53	.8
TOTAL	100.0	100.0	13095	4.6	.12	.55	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.9	68.2	13389	2.6	.07	.52	.8
FLOAT-1.40	94.3	95.4	13286	3.3	.08	.51	.8
FLOAT-1.60	99.3	99.6	13183	4.0	.08	.51	.8
TOTAL	100.0	100.0	13139	4.3	.10	.53	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: NEW MEXICO
COUNTY: MCKINLEY

COALBED: BLUE
RAW COAL MOISTURE: 8.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	81.8	84.3	13193	4.1	.09	.56	.8
FLOAT-1.40	93.9	95.9	13072	4.9	.10	.57	.9
FLOAT-1.60	98.7	99.4	12891	6.1	.10	.57	.9
TOTAL	100.0	100.0	12800	6.7	.19	.66	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.5	72.9	13254	3.7	.10	.64	1.0
FLOAT-1.40	91.2	93.5	13133	4.5	.10	.63	1.0
FLOAT-1.60	97.6	98.8	12967	5.6	.11	.62	1.0
TOTAL	100.0	100.0	12816	6.6	.23	.74	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.8	46.6	13375	2.9	.11	.47	.7
FLOAT-1.40	88.8	91.6	13254	3.7	.10	.48	.7
FLOAT-1.60	97.0	98.7	13072	4.9	.11	.49	.7
TOTAL	100.0	100.0	12846	6.4	.31	.68	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: NEW MEXICO
COUNTY: SAN JUAN

COALBED: NO. 8
RAW COAL MOISTURE: 10.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.1	31.5	12810	6.2	.13	.59	.9
FLOAT-1.40	74.4	82.0	12160	11.0	.14	.56	.9
FLOAT-1.60	90.1	96.0	11753	14.0	.18	.58	1.0
TOTAL	100.0	100.0	11035	19.3	.28	.64	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.7	26.7	12973	5.0	.11	.60	.9
FLOAT-1.40	69.3	77.5	12363	9.5	.12	.57	.9
FLOAT-1.60	87.9	94.7	11902	12.9	.14	.59	1.0
TOTAL	100.0	100.0	11049	19.2	.26	.65	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.2	21.5	13081	4.2	.10	.49	.7
FLOAT-1.40	60.6	69.1	12620	7.6	.10	.56	.9
FLOAT-1.60	85.8	93.6	12065	11.7	.10	.57	.9
TOTAL	100.0	100.0	11063	19.1	.24	.64	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: NEW MEXICO
COUNTY: SAN JUAN

COALBED: NO. 8
RAW COAL MOISTURE: 6.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.7	30.7	12889	6.2	.08	.65	1.0
FLOAT-1.40	70.5	80.0	12259	10.8	.13	.68	1.1
FLOAT-1.60	85.7	94.0	11848	13.8	.15	.68	1.1
TOTAL	100.0	100.0	10807	21.4	.29	.78	1.4
EPA STANDARD	88.2	95.0	11664	17.1	.18	.68	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.8	29.7	12958	5.7	.05	.69	1.1
FLOAT-1.40	66.5	76.0	12382	9.9	.10	.65	1.0
FLOAT-1.60	85.4	93.8	11903	13.4	.13	.66	1.1
TOTAL	100.0	100.0	10834	21.2	.26	.74	1.4
EPA STANDARD	90.6	96.0	11524	17.5	.18	.68	1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: NEW MEXICO
COUNTY: SAN JUAN

COALBED: NO. 8
RAW COAL MOISTURE: 8.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.9	41.4	12667	7.3	.13	.65	1.0
FLOAT-1.40	74.3	85.1	12216	10.6	.13	.63	1.0
FLOAT-1.60	83.4	93.4	11956	12.5	.14	.63	1.1
TOTAL	100.0	100.0	10671	21.9	.29	.71	1.3
EPA STANDARD	92.2	96.9	11278	20.7	.21	.65	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.0	38.1	12803	6.3	.11	.62	1.0
FLOAT-1.40	71.1	81.8	12366	9.5	.12	.62	1.0
FLOAT-1.60	83.1	93.2	12065	11.7	.15	.62	1.0
TOTAL	100.0	100.0	10753	21.3	.31	.72	1.3
EPA STANDARD	92.4	97.0	11339	21.1	.29	.65	1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: NEW MEXICO
COUNTY: SAN JUAN

COALBED: NO. 8
RAW COAL MOISTURE: 7.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.2	39.8	12725	6.7	.05	.64	1.0
FLOAT-1.40	69.2	79.9	12252	10.2	.08	.64	1.0
FLOAT-1.60	82.4	92.3	11887	12.9	.10	.64	1.1
TOTAL	100.0	100.0	10618	22.3	.17	.67	1.3
EPA STANDARD	94.1	97.4	11043	20.3	.16	.65	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.2	37.5	12860	5.7	.06	.68	1.1
FLOAT-1.40	62.4	72.7	12468	8.6	.06	.69	1.1
FLOAT-1.60	82.0	91.9	11995	12.1	.08	.66	1.1
TOTAL	100.0	100.0	10699	21.7	.16	.66	1.2
EPA STANDARD	95.4	98.0	11027	19.3	.09	.66	1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: NEW MEXICO
COUNTY: COLFAX

COALBED: YORK
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.6	59.1	14298	4.7	.04	.46	.6
FLOAT-1.40	90.5	92.7	14021	6.6	.04	.46	.7
FLOAT-1.60	96.6	98.0	13890	7.5	.05	.46	.7
TOTAL	100.0	100.0	13685	8.9	.05	.46	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.7	66.7	14400	4.0	.04	.52	.7
FLOAT-1.40	88.8	91.5	14167	5.6	.05	.51	.7
FLOAT-1.60	95.7	97.4	13992	6.8	.05	.51	.7
TOTAL	100.0	100.0	13744	8.5	.05	.50	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.4	63.0	14488	3.4	.04	.53	.7
FLOAT-1.40	86.0	89.8	14254	5.0	.05	.51	.7
FLOAT-1.60	94.3	96.9	14035	6.5	.06	.51	.7
TOTAL	100.0	100.0	13656	9.1	.06	.49	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: NEW MEXICO
COUNTY: COLFAX

COALBED: YORK
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.6	62.3	14059	5.2	.15	.48	.7
FLOAT-1.40	85.7	89.6	13829	6.8	.15	.50	.7
FLOAT-1.60	94.7	97.8	13657	8.0	.15	.50	.7
TOTAL	100.0	100.0	13226	11.0	.18	.52	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.0	69.3	14145	4.6	.12	.57	.8
FLOAT-1.40	86.1	90.6	13959	5.9	.12	.55	.8
FLOAT-1.60	93.1	96.7	13786	7.1	.13	.54	.8
TOTAL	100.0	100.0	13269	10.7	.15	.55	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.3	69.3	14260	3.8	.09	.41	.6
FLOAT-1.40	84.9	90.1	14045	5.3	.09	.42	.6
FLOAT-1.60	91.9	96.2	13858	6.6	.10	.43	.6
TOTAL	100.0	100.0	13240	10.9	.15	.47	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: NORTH DAKOTA
COUNTY: OLIVER

COALBED: UNCORRELATED
RAW COAL MOISTURE: 27.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	78.5	81.2	11410	6.0	.06	.64	1.1
FLOAT-1.40	94.0	96.3	11298	6.8	.10	.70	1.2
FLOAT-1.60	97.4	98.9	11199	7.5	.18	.77	1.4
TOTAL	100.0	100.0	11031	8.7	.79	1.39	2.5
EPA STANDARD	90.1	92.6	11335	6.6	.08	.68	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.0	70.7	11466	5.6	.11	.70	1.2
FLOAT-1.40	91.4	94.2	11368	6.3	.11	.71	1.2
FLOAT-1.60	96.9	98.8	11241	7.2	.16	.76	1.4
TOTAL	100.0	100.0	11031	8.7	.85	1.45	2.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

(NO DATA AVAILABLE)

STATE: OHIO
COUNTY: ATHENS

COALBED: VARIOUS
RAW COAL MOISTURE: 4.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.1	38.0	13688	3.5	.80	2.63	3.8
FLOAT-1.40	81.1	85.9	13404	5.5	1.45	3.52	5.3
FLOAT-1.60	92.6	96.5	13191	7.0	1.84	3.88	5.9
FLOAT-1.90	94.8	98.1	13092	7.7	1.95	3.97	6.1
TOTAL	100.0	100.0	12652	10.8	2.57	4.54	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.3	59.9	13730	3.2	.59	2.42	3.5
FLOAT-1.40	81.2	86.8	13560	4.4	.98	2.92	4.3
FLOAT-1.60	90.2	95.1	13376	5.7	1.30	3.24	4.8
FLOAT-1.90	93.2	97.4	13248	6.6	1.47	3.39	5.1
TOTAL	100.0	100.0	12681	10.6	2.58	4.51	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.3	46.4	13815	2.6	.42	2.14	3.1
FLOAT-1.40	78.8	85.0	13574	4.3	.76	2.69	4.0
FLOAT-1.60	89.2	94.7	13361	5.8	1.06	3.01	4.5
FLOAT-1.90	92.2	97.0	13234	6.7	1.22	3.16	4.8
TOTAL	100.0	100.0	12581	11.3	2.74	4.65	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: WAYNESBURG
RAW COAL MOISTURE: 2.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.2	8.3	13799	4.7	.44	1.39	2.0
FLOAT-1.40	68.6	73.5	12903	10.9	1.05	1.96	3.0
FLOAT-1.60	91.0	94.2	12454	14.0	1.15	1.97	3.2
TOTAL	100.0	100.0	12035	16.9	1.82	2.61	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.0	11.6	13915	3.9	.27	1.28	1.8
FLOAT-1.40	65.9	72.1	13091	9.6	.68	1.63	2.5
FLOAT-1.60	87.6	92.4	12613	12.9	.89	1.78	2.8
TOTAL	100.0	100.0	11963	17.4	2.06	2.85	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.4	27.1	13959	3.6	.27	1.27	1.8
FLOAT-1.40	64.2	71.4	13380	7.6	.47	1.38	2.1
FLOAT-1.60	84.7	90.5	12859	11.2	.59	1.47	2.3
TOTAL	100.0	100.0	12035	16.9	1.96	2.72	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: SEWICKLEY
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.9	5.3	14017	3.6	.19	2.21	3.2
FLOAT-1.40	88.2	90.2	13262	8.8	1.08	3.00	4.5
FLOAT-1.60	96.7	97.9	13132	9.7	1.34	3.23	4.9
TOTAL	100.0	100.0	12972	10.8	1.72	3.57	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.2	8.9	13959	4.0	.20	2.28	3.3
FLOAT-1.40	83.5	86.4	13364	8.1	.71	2.61	3.9
FLOAT-1.60	94.6	96.5	13175	9.4	1.08	2.96	4.5
TOTAL	100.0	100.0	12914	11.2	1.78	3.60	5.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.6	33.3	14104	3.0	.09	2.14	3.0
FLOAT-1.40	81.9	85.9	13596	6.5	.26	2.22	3.3
FLOAT-1.60	93.2	95.9	13335	8.3	.60	2.36	3.5
TOTAL	100.0	100.0	12958	10.9	1.87	3.57	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: SEWICKLEY
RAW COAL MOISTURE: 2.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	6.2	6.8	13885	4.4	.35	1.62	2.3
FLOAT-1.40	79.6	83.2	13159	9.4	.88	2.20	3.3
FLOAT-1.60	95.6	97.6	12854	11.5	1.13	2.48	3.9
FLOAT-1.90	97.4	98.9	12781	12.0	1.22	2.57	4.0
TOTAL	100.0	100.0	12593	13.3	1.63	3.03	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.6	28.3	13943	4.0	.34	1.61	2.3
FLOAT-1.40	74.6	79.1	13377	7.9	.55	1.81	2.7
FLOAT-1.60	93.8	96.5	12985	10.6	.88	2.15	3.3
FLOAT-1.90	96.6	98.5	12869	11.4	1.00	2.28	3.5
TOTAL	100.0	100.0	12622	13.1	1.61	2.99	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.8	27.6	14016	3.5	.24	1.52	2.2
FLOAT-1.40	70.1	74.8	13449	7.4	.48	1.76	2.6
FLOAT-1.60	93.4	96.1	12970	10.7	.81	2.07	3.2
FLOAT-1.90	96.6	98.4	12839	11.6	.94	2.22	3.5
TOTAL	100.0	100.0	12607	13.2	1.62	3.00	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: HARRISON

COALBED: SEWICKLEY
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.5	21.7	13713	5.8	.29	1.13	1.6
FLOAT-1.40	91.4	93.1	13197	9.5	.86	1.76	2.7
FLOAT-1.60	97.3	98.2	13085	10.3	.98	1.85	2.8
TOTAL	100.0	100.0	12960	11.2	1.35	2.22	3.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	21.8	23.3	13908	4.4	.26	1.12	1.6
FLOAT-1.40	87.8	90.1	13336	8.5	.61	1.45	2.2
FLOAT-1.60	96.8	97.9	13155	9.8	.81	1.60	2.4
TOTAL	100.0	100.0	13002	10.9	1.35	2.13	3.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.4	43.9	14187	2.4	.24	1.16	1.6
FLOAT-1.40	84.6	87.1	13448	7.7	.35	1.24	1.8
FLOAT-1.60	95.8	97.3	13267	9.0	.47	1.35	2.0
TOTAL	100.0	100.0	13058	10.5	1.32	2.19	3.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: HARRISON

COALBED: SEWICKLEY
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.5	24.0	13857	5.0	.33	1.02	1.5
FLOAT-1.40	90.4	92.4	13276	8.9	.64	1.27	1.9
FLOAT-1.60	95.9	97.3	13187	9.5	.83	1.46	2.2
TOTAL	100.0	100.0	12993	10.8	1.30	1.94	3.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.2	27.1	14006	4.0	.39	1.04	1.5
FLOAT-1.40	86.8	89.4	13410	8.0	.55	1.20	1.8
FLOAT-1.60	96.0	97.5	13231	9.2	.71	1.36	2.1
TOTAL	100.0	100.0	13023	10.6	1.22	1.89	2.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.8	48.2	14036	3.8	.16	.82	1.2
FLOAT-1.40	84.9	88.1	13529	7.2	.33	1.15	1.7
FLOAT-1.60	95.3	97.5	13336	8.5	.48	1.28	1.9
TOTAL	100.0	100.0	13038	10.5	1.21	2.04	3.1
EPA STANDARD	47.8	51.3	14006	4.0	.16	.84	1.20

STATE: OHIO
COUNTY: MORGAN

COALBED: SEWICKLEY
RAW COAL MOISTURE: 2.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.2	30.3	13718	3.8	.58	3.87	5.6
FLOAT-1.40	67.8	72.7	13233	7.2	1.21	4.41	6.7
FLOAT-1.60	91.3	94.0	12705	10.9	1.94	4.96	7.8
TOTAL	100.0	100.0	12334	13.5	2.79	5.73	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.2	37.8	13732	3.7	.68	3.99	5.8
FLOAT-1.40	71.6	76.8	13333	6.5	1.20	4.28	6.4
FLOAT-1.60	90.7	93.8	12862	9.8	1.78	4.71	7.3
TOTAL	100.0	100.0	12434	12.8	2.75	5.57	9.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.5	49.3	13689	4.0	.65	3.89	5.7
FLOAT-1.40	69.5	75.1	13361	6.3	.99	4.11	6.2
FLOAT-1.60	89.4	93.3	12905	9.5	1.57	4.29	6.6
TOTAL	100.0	100.0	12363	13.3	2.75	5.41	8.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: MORGAN

COALBED: SEWICKLEY
RAW COAL MOISTURE: 3.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	3.2	3.8	13382	5.0	.63	3.79	5.7
FLOAT-1.40	56.2	64.0	12748	9.5	1.19	4.16	6.5
FLOAT-1.60	83.7	90.8	12142	13.8	1.75	4.58	7.5
FLOAT-1.90	92.4	97.2	11776	16.4	2.11	4.84	8.2
TOTAL	100.0	100.0	11199	20.5	2.77	5.35	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	22.7	27.1	13424	4.7	.57	3.75	5.6
FLOAT-1.40	60.1	69.2	12945	8.1	.94	4.03	6.2
FLOAT-1.60	80.3	88.9	12438	11.7	1.40	4.30	6.9
FLOAT-1.90	89.3	95.8	12058	14.4	1.73	4.53	7.5
TOTAL	100.0	100.0	11241	20.2	2.79	5.38	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	25.4	30.7	13466	4.4	.55	3.71	5.5
FLOAT-1.40	57.6	67.1	13002	7.7	.89	4.01	6.2
FLOAT-1.60	77.4	86.8	12509	11.2	1.25	4.19	6.7
FLOAT-1.90	87.4	94.7	12086	14.2	1.56	4.35	7.2
TOTAL	100.0	100.0	11157	20.8	2.86	5.46	9.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: MORGAN

COALBED: SEWICKLEY
RAW COAL MOISTURE: 3.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	1.1	1.3	13503	4.0	.68	3.49	5.2
FLOAT-1.40	39.6	45.6	12716	9.6	1.47	4.21	6.6
FLOAT-1.60	83.1	89.2	11858	15.7	1.96	4.42	7.5
FLOAT-1.90	91.5	95.9	11577	17.7	2.28	4.62	8.0
TOTAL	100.0	100.0	11042	21.5	3.30	5.51	10.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	4.8	5.7	12871	8.5	1.92	4.19	6.5
FLOAT-1.40	53.3	59.1	12027	14.5	2.70	4.83	8.0
FLOAT-1.60	87.9	91.9	11337	19.4	2.92	4.99	8.8
FLOAT-1.90	94.2	97.0	11169	20.6	3.07	5.07	9.1
TOTAL	100.0	100.0	10845	22.9	3.66	5.57	10.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,% WEIGHT	RECOVERY,% BTU	BTU/LB	ASH,%	SULFUR,% PYRITIC	SULFUR,% TOTAL	LB SO2/M BTU
FLOAT-1.30	11.5	13.5	12772	9.2	.82	3.46	5.4
FLOAT-1.40	47.0	53.8	12420	11.7	1.44	4.15	6.7
FLOAT-1.60	79.1	85.2	11703	16.8	1.69	4.17	7.1
FLOAT-1.90	90.6	94.8	11366	19.2	1.99	4.36	7.7
TOTAL	100.0	100.0	10859	22.8	3.31	5.52	10.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: NOBLE

COALBED: SEWICKLEY
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.3	8.1	13687	3.9	.55	4.07	5.9
FLOAT-1.40	70.6	74.6	13014	8.7	1.61	4.70	7.2
FLOAT-1.60	94.0	96.2	12607	11.6	1.98	5.04	8.0
TOTAL	100.0	100.0	12312	13.7	2.85	5.85	9.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.8	9.9	13757	3.4	.53	4.13	6.0
FLOAT-1.40	67.8	72.6	13140	7.8	1.23	4.56	6.9
FLOAT-1.60	91.5	94.7	12705	10.9	1.69	4.89	7.7
TOTAL	100.0	100.0	12270	14.0	2.77	5.84	9.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.8	42.4	13799	3.1	.50	4.15	6.0
FLOAT-1.40	69.2	74.5	13252	7.0	1.08	4.37	6.6
FLOAT-1.60	90.9	94.5	12803	10.2	1.52	4.65	7.3
TOTAL	100.0	100.0	12312	13.7	2.72	5.72	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: NOBLE

COALBED: SEWICKLEY
RAW COAL MOISTURE: 1.8 %

BENCH: TOP

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.5	4.2	13828	4.1	.22	2.83	4.1
FLOAT-1.40	43.4	47.9	12736	11.8	1.15	3.61	5.7
FLOAT-1.60	87.9	91.8	12042	16.7	2.36	4.52	7.5
TOTAL	100.0	100.0	11531	20.3	3.37	5.39	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.5	5.4	13715	4.9	.29	2.91	4.2
FLOAT-1.40	55.0	61.8	12864	10.9	.60	3.07	4.8
FLOAT-1.60	81.2	87.5	12339	14.6	1.28	3.52	5.7
TOTAL	100.0	100.0	11446	20.9	3.35	5.37	9.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.5	16.3	13814	4.2	.16	2.80	4.1
FLOAT-1.40	57.6	65.6	13077	9.4	.31	2.83	4.3
FLOAT-1.60	79.8	87.8	12623	12.6	.61	2.91	4.6
TOTAL	100.0	100.0	11475	20.7	3.52	5.56	9.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: NOBLE

COALBED: SEWICKLEY
RAW COAL MOISTURE: 1.7 %

BENCH: BOTTOM

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	3.9	4.3	13890	4.1	.50	3.95	5.7
FLOAT-1.40	71.6	74.9	13230	8.7	1.67	4.71	7.1
FLOAT-1.60	94.9	96.5	12858	11.3	2.55	5.46	8.5
TOTAL	100.0	100.0	12642	12.8	3.02	5.87	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.6	9.5	13933	3.8	.53	4.26	6.1
FLOAT-1.40	70.0	74.0	13331	8.0	1.43	4.79	7.2
FLOAT-1.60	92.2	94.6	12944	10.7	2.23	5.41	8.4
TOTAL	100.0	100.0	12614	13.0	3.09	6.14	9.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.4	14.8	14034	3.1	.39	3.95	5.6
FLOAT-1.40	67.3	71.2	13446	7.2	.98	4.64	6.9
FLOAT-1.60	94.0	96.1	13001	10.3	1.91	5.21	8.0
TOTAL	100.0	100.0	12714	12.3	2.87	6.00	9.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.9	41.0	14039	4.2	.71	2.65	3.8
FLOAT-1.40	81.0	88.1	13748	6.2	1.50	3.38	4.9
FLOAT-1.60	89.4	96.2	13602	7.2	1.89	3.73	5.5
TOTAL	100.0	100.0	12641	13.8	2.42	4.08	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.6	49.7	13981	4.6	.77	2.67	3.8
FLOAT-1.40	80.1	87.8	13748	6.2	1.42	3.27	4.8
FLOAT-1.60	88.6	95.8	13558	7.5	1.86	3.66	5.4
TOTAL	100.0	100.0	12539	14.5	2.42	4.07	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.1	43.6	14185	3.2	.47	2.44	3.4
FLOAT-1.40	77.9	84.9	13864	5.4	1.05	2.98	4.3
FLOAT-1.60	88.1	94.2	13602	7.2	1.41	3.38	5.0
TOTAL	100.0	100.0	12728	13.2	2.53	4.34	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.7	31.3	13893	4.1	.75	2.83	4.1
FLOAT-1.40	74.3	81.4	13489	6.9	1.81	3.83	5.7
FLOAT-1.60	86.5	93.3	13273	8.4	2.34	4.33	6.5
TOTAL	100.0	100.0	12307	15.1	4.38	6.22	10.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.5	41.5	13835	4.5	.79	2.82	4.1
FLOAT-1.40	76.9	83.1	13518	6.7	1.59	3.56	5.3
FLOAT-1.60	88.9	94.4	13287	8.3	2.21	4.11	6.2
TOTAL	100.0	100.0	12508	13.7	3.80	5.62	9.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.3	44.8	13691	5.5	1.04	3.06	4.5
FLOAT-1.40	73.6	80.8	13518	6.7	1.57	3.59	5.3
FLOAT-1.60	85.5	92.1	13258	8.5	2.15	4.18	6.3
TOTAL	100.0	100.0	12307	15.1	4.26	6.19	10.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.7	14.8	14033	3.9	.70	2.62	3.7
FLOAT-1.40	80.2	83.9	13632	6.7	2.08	3.96	5.8
FLOAT-1.60	93.4	96.2	13417	8.2	2.51	4.36	6.5
TOTAL	100.0	100.0	13030	10.9	3.26	5.05	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.0	23.8	14076	3.6	.62	2.67	3.8
FLOAT-1.40	80.0	84.1	13675	6.4	1.78	3.78	5.5
FLOAT-1.60	91.7	95.1	13489	7.7	2.23	4.17	6.2
TOTAL	100.0	100.0	13002	11.1	3.14	5.04	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.7	32.3	14162	3.0	.44	2.40	3.4
FLOAT-1.40	76.0	80.6	13818	5.4	1.17	3.28	4.7
FLOAT-1.60	91.4	95.1	13560	7.2	1.74	3.79	5.6
TOTAL	100.0	100.0	13030	10.9	3.26	5.27	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.2	37.9	14101	3.8	.59	2.63	3.7
FLOAT-1.40	81.3	85.6	13794	5.9	1.29	3.28	4.8
FLOAT-1.60	92.8	95.9	13546	7.6	1.70	3.67	5.4
TOTAL	100.0	100.0	13108	10.6	2.32	4.21	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.7	45.3	14116	3.7	.60	2.69	3.8
FLOAT-1.40	81.0	85.9	13794	5.9	1.17	3.16	4.6
FLOAT-1.60	91.1	95.1	13575	7.4	1.57	3.51	5.2
TOTAL	100.0	100.0	13006	11.3	2.54	4.40	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.0	47.5	14174	3.3	.51	2.63	3.7
FLOAT-1.40	81.8	86.5	13882	5.3	.94	2.98	4.3
FLOAT-1.60	90.9	94.8	13692	6.6	1.25	3.06	4.5
TOTAL	100.0	100.0	13123	10.5	2.38	4.08	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 3.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.9	22.5	14026	3.6	.52	1.78	2.5
FLOAT-1.40	82.7	86.5	13655	6.2	1.11	2.38	3.5
FLOAT-1.60	92.3	95.2	13469	7.5	1.45	2.70	4.0
TOTAL	100.0	100.0	13056	10.4	2.00	3.19	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.5	29.7	14040	3.5	.49	1.78	2.5
FLOAT-1.40	82.6	86.9	13683	6.0	1.08	2.35	3.4
FLOAT-1.60	91.5	94.9	13498	7.3	1.37	2.61	3.9
TOTAL	100.0	100.0	13013	10.7	2.02	3.21	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.9	31.4	14111	3.0	.31	1.61	2.3
FLOAT-1.40	79.3	84.2	13783	5.3	.77	2.07	3.0
FLOAT-1.60	91.1	94.9	13527	7.1	1.04	2.21	3.3
TOTAL	100.0	100.0	12985	10.9	2.07	3.13	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 2.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.0	30.8	13895	4.0	.41	2.13	3.1
FLOAT-1.40	79.9	85.6	13531	6.5	1.39	3.23	4.8
FLOAT-1.60	90.9	96.0	13342	7.8	1.79	3.60	5.4
TOTAL	100.0	100.0	12629	12.7	2.23	3.92	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.2	39.9	13910	3.9	.41	2.19	3.1
FLOAT-1.40	78.3	84.4	13619	5.9	1.12	2.95	4.3
FLOAT-1.60	89.1	94.5	13400	7.4	1.55	3.31	4.9
TOTAL	100.0	100.0	12629	12.7	2.43	4.04	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.1	30.8	13997	3.3	.32	2.16	3.1
FLOAT-1.40	78.6	84.3	13706	5.3	.81	2.67	3.9
FLOAT-1.60	90.9	95.6	13429	7.2	1.27	3.08	4.6
TOTAL	100.0	100.0	12775	11.7	2.23	3.95	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: BELMONT

COALBED: PITTSBURGH
RAW COAL MOISTURE: 2.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.0	21.6	13874	3.7	.48	2.82	4.1
FLOAT-1.40	58.9	77.1	13442	6.7	1.23	3.68	5.5
FLOAT-1.60	70.2	89.9	13154	8.7	1.68	4.16	6.3
FLOAT-1.90	75.1	94.3	12894	10.5	1.86	4.33	6.7
TOTAL	100.0	100.0	10272	28.7	2.61	4.50	8.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.0	31.1	13903	3.5	.42	2.77	4.0
FLOAT-1.40	59.6	78.7	13557	5.9	1.02	3.45	5.1
FLOAT-1.60	69.1	89.5	13312	7.6	1.44	3.88	5.8
FLOAT-1.90	74.1	93.9	13024	9.6	1.67	4.01	6.2
TOTAL	100.0	100.0	10272	28.7	2.55	4.60	9.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.6	36.1	13917	3.4	.37	2.74	3.9
FLOAT-1.40	52.6	70.0	13629	5.4	.73	3.12	4.6
FLOAT-1.60	65.6	85.1	13283	7.8	1.13	3.51	5.3
FLOAT-1.90	73.5	92.6	12909	10.4	1.38	3.68	5.7
TOTAL	100.0	100.0	10244	28.9	2.79	4.66	9.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

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STATE:      OHIO                                                   COALBED: PITTSBURGH
COUNTY:     BELMONT                                                RAW COAL MOISTURE:  1.6 %
                                         CUMULATIVE WASHABILITY DATA

                                     SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT               RECOVERY,%       BTU/LB      ASH,%        SULFUR,%             LB SO2/M BTU
                    WEIGHT    BTU                            PYRITIC    TOTAL
FLOAT-1.30           20.4     22.3      13763       4.6         .75      3.22              4.7
FLOAT-1.40           74.5     79.0      13374       7.3        1.57      4.06              6.1
FLOAT-1.60           93.3     96.3      13013       9.8        2.15      4.70              7.2
FLOAT-1.90           96.6     98.6      12869      10.8        2.33      4.88              7.6
TOTAL               100.0    100.0      12609      12.6        2.72      5.30              8.4

EPA STANDARD        *****    *****      *****     *****       *****     *****              1.20

                                     SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT               RECOVERY,%       BTU/LB      ASH,%        SULFUR,%             LB SO2/M BTU
                    WEIGHT    BTU                            PYRITIC    TOTAL
FLOAT-1.30           24.4     26.8      13922       3.5         .65      3.09              4.4
FLOAT-1.40           77.8     82.6      13460       6.7        1.28      3.74              5.6
FLOAT-1.60           91.8     95.7      13215       8.4        1.72      4.20              6.4
FLOAT-1.90           95.3     98.1      13056       9.5        1.89      4.38              6.7
TOTAL               100.0    100.0      12681      12.1        2.56      5.11              8.1

EPA STANDARD        *****    *****      *****     *****       *****     *****              1.20

                                     SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT               RECOVERY,%       BTU/LB      ASH,%        SULFUR,%             LB SO2/M BTU
                    WEIGHT    BTU                            PYRITIC    TOTAL
FLOAT-1.30           12.8     14.2      13951       3.3         .54      3.05              4.4
FLOAT-1.40           72.7     78.0      13518       6.3        1.09      3.60              5.3
FLOAT-1.60           90.1     94.5      13215       8.4        1.58      4.07              6.2
FLOAT-1.90           94.4     97.8      13042       9.6        1.77      4.26              6.5
TOTAL               100.0    100.0      12595      12.7        2.64      5.25              8.3

EPA STANDARD        *****    *****      *****     *****       *****     *****              1.20

STATE:      OHIO                                                   COALBED: PITTSBURGH
COUNTY:     BELMONT                                                RAW COAL MOISTURE:  2.1 %
                                         CUMULATIVE WASHABILITY DATA

                                     SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT               RECOVERY,%       BTU/LB      ASH,%        SULFUR,%             LB SO2/M BTU
                    WEIGHT    BTU                            PYRITIC    TOTAL
FLOAT-1.30           37.4     45.6      13430       5.3        1.06      3.25              4.8
FLOAT-1.40           68.0     81.1      13118       7.5        1.95      4.08              6.2
FLOAT-1.60           78.6     91.6      12821       9.6        2.57      4.57              7.1
FLOAT-1.90           82.2     94.3      12622      11.0        2.84      4.80              7.6
TOTAL               100.0    100.0      11005      22.4        4.62      6.29             11.4

EPA STANDARD        *****    *****      *****     *****       *****     *****              1.20

                                     SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT               RECOVERY,%       BTU/LB      ASH,%        SULFUR,%             LB SO2/M BTU
                    WEIGHT    BTU                            PYRITIC    TOTAL
FLOAT-1.30           35.7     43.7      13445       5.2         .97      3.10              4.6
FLOAT-1.40           68.5     81.4      13062       7.9        1.93      3.90              6.0
FLOAT-1.60           77.6     90.4      12806       9.7        2.44      4.31              6.7
FLOAT-1.90           82.9     93.8      12438      12.3        2.81      4.59              7.4
TOTAL               100.0    100.0      10991      22.5        4.62      6.18             11.2

EPA STANDARD        *****    *****      *****     *****       *****     *****              1.20

                                     SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT               RECOVERY,%       BTU/LB      ASH,%        SULFUR,%             LB SO2/M BTU
                    WEIGHT    BTU                            PYRITIC    TOTAL
FLOAT-1.30           30.3     37.6      13586       4.2        1.06      3.09              4.5
FLOAT-1.40           60.1     72.5      13203       6.9        2.04      3.61              5.5
FLOAT-1.60           77.1     89.7      12735      10.2        3.03      4.27              6.7
FLOAT-1.90           82.6     94.3      12494      11.9        3.42      4.63              7.4
TOTAL               100.0    100.0      10949      22.8        5.12      6.18             11.3

EPA STANDARD        *****    *****      *****     *****       *****     *****              1.20
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STATE: OHIO
COUNTY: GALLIA

COALBED: PITTSBURGH
RAW COAL MOISTURE: 6.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.7	38.7	13554	3.5	.64	1.77	2.6
FLOAT-1.40	90.3	92.7	13177	6.2	1.49	2.51	3.8
FLOAT-1.60	96.1	97.8	13066	7.0	1.75	2.74	4.2
TOTAL	100.0	100.0	12843	8.6	2.29	3.26	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.3	57.4	13554	3.5	.63	1.69	2.5
FLOAT-1.40	88.2	91.5	13303	5.3	.94	2.09	3.1
FLOAT-1.60	94.3	96.8	13164	6.3	1.15	2.27	3.4
TOTAL	100.0	100.0	12829	8.7	2.29	3.37	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.7	71.0	13610	3.1	.48	1.64	2.4
FLOAT-1.40	86.2	90.6	13442	4.3	.66	1.82	2.7
FLOAT-1.60	92.9	96.5	13289	5.4	.79	1.94	2.9
TOTAL	100.0	100.0	12787	9.0	2.24	3.34	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: HARRISON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.4	29.3	13827	4.4	.93	2.38	3.4
FLOAT-1.40	62.9	76.3	13421	7.2	1.74	3.23	4.8
FLOAT-1.60	76.3	90.1	13059	9.7	2.22	3.64	5.6
TOTAL	100.0	100.0	11060	23.5	2.83	3.98	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.7	28.2	13855	4.2	.83	2.35	3.4
FLOAT-1.40	64.6	77.9	13464	6.9	1.74	3.14	4.7
FLOAT-1.60	75.4	89.1	13189	8.8	2.14	3.50	5.3
TOTAL	100.0	100.0	11162	22.8	2.84	3.94	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.8	38.2	13667	5.5	.83	2.33	3.4
FLOAT-1.40	62.9	76.3	13363	7.6	1.38	2.91	4.4
FLOAT-1.60	74.3	88.2	13073	9.6	1.92	3.27	5.0
TOTAL	100.0	100.0	11017	23.8	3.11	4.29	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: HARRISON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.4	39.2	13925	3.7	.40	1.73	2.5
FLOAT-1.40	73.8	79.7	13592	6.0	1.01	2.47	3.6
FLOAT-1.60	90.3	96.0	13375	7.5	1.43	2.98	4.5
FLOAT-1.90	93.2	98.0	13231	8.5	1.56	3.12	4.7
TOTAL	100.0	100.0	12580	13.0	2.01	3.48	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.5	57.8	13939	3.6	.32	1.71	2.5
FLOAT-1.40	81.2	88.1	13722	5.1	.74	2.21	3.2
FLOAT-1.60	88.9	95.1	13534	6.4	.94	2.44	3.6
FLOAT-1.90	92.4	97.7	13375	7.5	1.11	2.62	3.9
TOTAL	100.0	100.0	12652	12.5	1.89	3.35	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.3	26.1	14084	2.6	.23	1.61	2.3
FLOAT-1.40	78.6	85.9	13751	4.9	.56	1.99	2.9
FLOAT-1.60	87.3	93.9	13534	6.4	.77	2.21	3.3
FLOAT-1.90	91.5	97.1	13346	7.7	.98	2.42	3.6
TOTAL	100.0	100.0	12580	13.0	2.00	3.48	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: JEFFERSON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.4	31.5	14104	3.9	.63	2.04	2.9
FLOAT-1.40	85.9	89.9	13782	6.1	1.32	2.74	4.0
FLOAT-1.60	94.3	97.9	13665	6.9	1.78	3.19	4.7
TOTAL	100.0	100.0	13167	10.3	2.03	3.37	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.9	43.9	14119	3.8	.62	2.00	2.8
FLOAT-1.40	86.4	90.7	13826	5.8	1.14	2.53	3.7
FLOAT-1.60	93.5	97.2	13694	6.7	1.53	2.90	4.2
TOTAL	100.0	100.0	13167	10.3	1.93	3.24	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.3	52.8	14222	3.1	.48	1.85	2.6
FLOAT-1.40	84.5	88.8	13943	5.0	.88	2.33	3.3
FLOAT-1.60	93.4	96.9	13767	6.2	1.32	2.67	3.9
TOTAL	100.0	100.0	13269	9.6	1.99	3.29	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: JEFFERSON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.9	32.0	14238	3.7	.59	1.53	2.1
FLOAT-1.40	89.7	93.5	13873	6.2	1.17	2.14	3.1
FLOAT-1.60	93.2	96.8	13814	6.6	1.33	2.30	3.3
TOTAL	100.0	100.0	13302	10.1	2.03	2.98	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.1	48.1	14223	3.8	.61	1.57	2.2
FLOAT-1.40	88.9	92.7	13916	5.9	.99	1.99	2.9
FLOAT-1.60	94.0	97.3	13814	6.6	1.20	2.19	3.2
TOTAL	100.0	100.0	13346	9.8	1.89	2.82	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.7	60.7	14296	3.3	.34	1.41	2.0
FLOAT-1.40	84.3	88.6	14033	5.1	.70	1.77	2.5
FLOAT-1.60	92.7	96.6	13902	6.0	.88	1.89	2.7
TOTAL	100.0	100.0	13346	9.8	2.04	3.00	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: JEFFERSON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.5	13.6	14122	4.4	1.03	2.12	3.0
FLOAT-1.40	84.5	88.2	13591	7.9	2.17	3.12	4.6
FLOAT-1.60	94.6	97.7	13439	8.9	2.55	3.50	5.2
TOTAL	100.0	100.0	13015	11.7	2.98	3.90	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.0	27.3	14137	4.3	.97	2.07	2.9
FLOAT-1.40	79.8	84.6	13712	7.1	1.87	2.96	4.3
FLOAT-1.60	92.0	95.9	13485	8.6	2.38	3.46	5.1
TOTAL	100.0	100.0	12939	12.2	3.13	4.16	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.9	44.9	14243	3.6	.70	1.84	2.6
FLOAT-1.40	80.6	86.1	13864	6.1	1.27	2.43	3.5
FLOAT-1.60	90.8	95.4	13637	7.6	1.78	2.86	4.2
TOTAL	100.0	100.0	12984	11.9	3.08	4.09	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: JEFFERSON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.4	16.4	13836	4.4	.79	2.09	3.0
FLOAT-1.40	53.8	63.1	13286	8.2	1.58	3.12	4.7
FLOAT-1.60	81.7	91.7	12722	12.1	2.36	4.08	6.4
FLOAT-1.90	87.6	96.2	12447	14.0	2.55	4.28	6.9
TOTAL	100.0	100.0	11332	21.7	2.97	4.63	8.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.7	32.2	13880	4.1	.79	2.08	3.0
FLOAT-1.40	60.2	70.5	13474	6.9	1.36	2.83	4.2
FLOAT-1.60	80.2	91.0	13055	9.8	1.97	3.59	5.5
FLOAT-1.90	86.5	95.9	12751	11.9	2.19	3.82	6.0
TOTAL	100.0	100.0	11506	20.5	2.87	4.45	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.5	19.1	13981	3.4	.55	1.86	2.7
FLOAT-1.40	53.0	62.9	13460	7.0	1.12	2.54	3.8
FLOAT-1.60	76.6	87.5	12968	10.4	1.68	3.21	5.0
FLOAT-1.90	85.5	94.8	12577	13.1	1.94	3.49	5.5
TOTAL	100.0	100.0	11347	21.6	3.04	4.67	8.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: JEFFERSON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 2.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.2	18.0	13902	4.3	.71	1.83	2.6
FLOAT-1.40	80.6	86.9	13509	7.0	1.45	2.87	4.2
FLOAT-1.60	90.6	96.2	13306	8.4	1.69	3.15	4.7
FLOAT-1.90	93.3	98.1	13175	9.3	1.78	3.24	4.9
TOTAL	100.0	100.0	12536	13.7	2.05	3.42	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.7	47.6	14018	3.5	.56	1.82	2.6
FLOAT-1.40	80.2	87.6	13742	5.4	1.06	2.40	3.5
FLOAT-1.60	88.8	95.7	13553	6.7	1.31	2.67	3.9
FLOAT-1.90	91.9	97.8	13393	7.8	1.42	2.78	4.2
TOTAL	100.0	100.0	12580	13.4	1.87	3.19	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.3	37.6	14061	3.2	.46	1.64	2.3
FLOAT-1.40	74.9	82.7	13756	5.3	.84	2.10	3.1
FLOAT-1.60	87.0	94.2	13495	7.1	1.11	2.39	3.5
FLOAT-1.90	90.9	97.1	13321	8.3	1.25	2.53	3.8
TOTAL	100.0	100.0	12464	14.2	2.08	3.37	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: MONROE

COALBED: PITTSBURGH
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.5	12.8	12973	5.3	.59	2.68	4.1
FLOAT-1.40	43.4	62.6	12384	9.6	1.20	3.00	4.8
FLOAT-1.60	59.4	82.4	11918	13.0	1.95	3.51	5.9
FLOAT-1.90	67.3	90.7	11576	15.5	2.25	3.80	6.6
TOTAL	100.0	100.0	8589	37.3	2.70	3.84	8.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.3	34.4	13110	4.3	.39	2.45	3.7
FLOAT-1.40	47.3	69.1	12411	9.4	1.02	2.96	4.8
FLOAT-1.60	60.3	85.9	12096	11.7	1.60	3.43	5.7
FLOAT-1.90	66.6	91.0	11603	15.3	1.90	3.70	6.4
TOTAL	100.0	100.0	8493	38.0	2.49	3.75	8.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.6	21.8	12904	5.8	.47	2.35	3.6
FLOAT-1.40	43.3	63.0	12562	8.3	.85	2.57	4.1
FLOAT-1.60	58.7	81.6	12000	12.4	1.51	3.04	5.1
FLOAT-1.90	67.3	88.2	11315	17.4	1.89	3.27	5.8
TOTAL	100.0	100.0	8630	37.0	2.57	3.71	8.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: GUERNSEY

COALBED: MAHONING
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.6	22.2	13483	4.1	.83	2.81	4.2
FLOAT-1.40	62.3	80.5	13033	7.3	1.51	3.42	5.2
FLOAT-1.60	70.3	89.6	12850	8.6	1.80	3.59	5.6
FLOAT-1.90	75.5	94.0	12555	10.7	2.01	3.73	5.9
TOTAL	100.0	100.0	10080	28.3	3.11	4.44	8.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.5	52.2	13525	3.8	.77	2.78	4.1
FLOAT-1.40	62.7	81.5	13300	5.4	1.09	3.06	4.6
FLOAT-1.60	69.9	89.5	13103	6.8	1.35	3.22	4.9
FLOAT-1.90	74.4	93.5	12864	8.5	1.51	3.33	5.2
TOTAL	100.0	100.0	10235	27.2	3.10	4.50	8.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.9	35.1	13581	3.4	.65	2.69	4.0
FLOAT-1.40	53.8	71.6	13314	5.3	.99	2.99	4.5
FLOAT-1.60	66.5	85.0	12794	9.0	1.28	3.14	4.9
FLOAT-1.90	75.2	93.2	12400	11.8	1.47	3.25	5.2
TOTAL	100.0	100.0	10010	28.8	3.03	4.43	8.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: JEFFERSON

COALBED: MAHONING
RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.7	71.0	14390	3.6	.30	.81	1.1
FLOAT-1.40	88.2	92.4	14166	5.1	.44	.98	1.4
FLOAT-1.60	94.0	97.2	13986	6.3	.51	1.06	1.5
FLOAT-1.90	96.0	98.4	13867	7.1	.59	1.13	1.6
TOTAL	100.0	100.0	13524	9.4	.89	1.48	2.2
EPA STANDARD	74.3	78.8	14325	3.9	.34	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.9	78.1	14509	2.8	.10	.62	.9
FLOAT-1.40	86.8	92.0	14345	3.9	.16	.69	1.0
FLOAT-1.60	92.2	96.6	14181	5.0	.21	.74	1.0
FLOAT-1.90	95.0	98.5	14031	6.0	.26	.78	1.1
TOTAL	100.0	100.0	13539	9.3	.84	1.46	2.2
EPA STANDARD	98.2	98.6	13990	7.2	.32	.83	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.8	65.4	14539	2.6	.09	.63	.9
FLOAT-1.40	87.0	91.7	14255	4.5	.17	.72	1.0
FLOAT-1.60	93.0	97.0	14106	5.5	.21	.75	1.1
FLOAT-1.90	95.7	98.8	13957	6.5	.24	.78	1.1
TOTAL	100.0	100.0	13524	9.4	.79	1.44	2.1
EPA STANDARD	99.3	98.9	13921	7.8	.29	.83	1.20

STATE: OHIO
COUNTY: HARRISON

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.0	56.8	14267	3.5	.44	1.26	1.8
FLOAT-1.40	86.8	91.1	13972	5.5	.80	1.79	2.6
FLOAT-1.60	93.5	97.1	13824	6.5	.95	1.97	2.9
FLOAT-1.90	95.8	98.8	13720	7.2	1.04	2.06	3.0
TOTAL	100.0	100.0	13306	10.0	1.37	2.36	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.6	71.5	14356	2.9	.37	1.10	1.5
FLOAT-1.40	84.9	90.0	14179	4.1	.53	1.35	1.9
FLOAT-1.60	92.3	96.6	14001	5.3	.71	1.57	2.2
FLOAT-1.90	94.9	98.5	13883	6.1	.83	1.69	2.4
TOTAL	100.0	100.0	13380	9.5	1.39	2.24	3.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.3	63.2	14430	2.4	.16	1.03	1.4
FLOAT-1.40	82.2	87.9	14223	3.8	.27	1.15	1.6
FLOAT-1.60	90.9	95.8	14031	5.1	.42	1.33	1.9
FLOAT-1.90	93.8	98.0	13898	6.0	.58	1.49	2.1
TOTAL	100.0	100.0	13306	10.0	1.45	2.39	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: HARRISON

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.0	57.3	14253	3.5	.40	1.10	1.5
FLOAT-1.40	86.1	91.4	13987	5.3	.82	1.62	2.3
FLOAT-1.60	92.1	97.0	13869	6.1	1.01	1.84	2.7
FLOAT-1.90	93.9	98.3	13795	6.6	1.14	1.98	2.9
TOTAL	100.0	100.0	13175	10.8	1.64	2.45	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.6	69.0	14356	2.8	.16	.85	1.2
FLOAT-1.40	85.2	91.2	14164	4.1	.38	1.09	1.5
FLOAT-1.60	90.9	96.5	14046	4.9	.57	1.30	1.9
FLOAT-1.90	92.8	97.9	13958	5.5	.70	1.43	2.0
TOTAL	100.0	100.0	13234	10.4	1.56	2.30	3.5
EPA STANDARD	64.9	70.4	14348	2.9	.17	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.7	54.6	14445	2.2	.11	.78	1.1
FLOAT-1.40	81.4	87.9	14194	3.9	.24	.92	1.3
FLOAT-1.60	89.7	95.6	14017	5.1	.39	1.07	1.5
FLOAT-1.90	92.1	97.6	13928	5.7	.51	1.19	1.7
TOTAL	100.0	100.0	13145	11.0	1.73	2.45	3.7
EPA STANDARD	70.1	76.2	14306	3.2	.18	.86	1.20

STATE: OHIO
COUNTY: COLUMBIANA

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.9	56.5	14345	3.6	.69	1.33	1.9
FLOAT-1.40	87.1	91.0	14017	5.8	1.07	1.79	2.6
FLOAT-1.60	93.5	96.6	13869	6.8	1.22	1.96	2.8
FLOAT-1.90	96.2	98.4	13735	7.7	1.33	2.07	3.0
TOTAL	100.0	100.0	13422	9.8	1.71	2.51	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.0	73.0	14493	2.6	.25	.75	1.0
FLOAT-1.40	85.4	90.5	14300	3.9	.44	.99	1.4
FLOAT-1.60	91.4	95.7	14136	5.0	.61	1.20	1.7
FLOAT-1.90	94.5	97.8	13973	6.1	.74	1.35	1.9
TOTAL	100.0	100.0	13497	9.3	1.61	2.39	3.5
EPA STANDARD	77.6	82.8	14402	3.2	.34	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	69.0	74.8	14538	2.3	.13	.62	.9
FLOAT-1.40	83.1	89.1	14374	3.4	.24	.75	1.0
FLOAT-1.60	89.8	95.1	14196	4.6	.38	.91	1.3
FLOAT-1.90	93.2	97.4	14017	5.8	.49	1.04	1.5
TOTAL	100.0	100.0	13407	9.9	1.71	2.52	3.8
EPA STANDARD	88.9	94.5	14257	4.2	.33	.86	1.20

STATE: OHIO
COUNTY: COLUMBIANA

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.6	74.2	14217	3.8	.28	.69	1.0
FLOAT-1.40	86.0	91.6	14010	5.2	.43	.88	1.3
FLOAT-1.60	91.0	96.0	13877	6.1	.56	1.03	1.5
FLOAT-1.90	93.0	97.5	13789	6.7	.68	1.16	1.7
TOTAL	100.0	100.0	13153	11.0	1.72	2.35	3.6
EPA STANDARD	83.6	89.2	14051	4.9	.40	.84	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	74.5	80.7	14336	3.0	.07	.51	.7
FLOAT-1.40	86.5	92.7	14188	4.0	.11	.57	.8
FLOAT-1.60	90.4	96.2	14084	4.7	.16	.62	.9
FLOAT-1.90	92.2	97.3	13981	5.4	.21	.66	.9
TOTAL	100.0	100.0	13242	10.4	1.61	2.34	3.5
EPA STANDARD	98.6	97.6	13908	7.9	.40	.82	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	69.6	76.2	14395	2.6	.06	.48	.7
FLOAT-1.40	83.9	90.7	14217	3.8	.09	.52	.7
FLOAT-1.60	89.5	95.8	14084	4.7	.13	.55	.8
FLOAT-1.90	91.8	97.3	13937	5.7	.17	.59	.8
TOTAL	100.0	100.0	13153	11.0	1.67	2.42	3.7
EPA STANDARD	92.8	97.6	13839	10.4	.38	.81	1.20

STATE: OHIO
COUNTY: COLUMBIANA

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 3.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.5	71.4	13967	5.2	.54	.90	1.3
FLOAT-1.40	91.8	94.3	13775	6.5	.77	1.13	1.6
FLOAT-1.60	96.0	98.0	13687	7.1	.89	1.24	1.8
FLOAT-1.90	97.5	99.0	13613	7.6	.97	1.32	1.9
TOTAL	100.0	100.0	13407	9.0	1.40	1.75	2.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.0	74.4	14247	3.3	.13	.69	1.0
FLOAT-1.40	90.2	94.0	13967	5.2	.39	.93	1.3
FLOAT-1.60	94.1	97.1	13834	6.1	.50	1.04	1.5
FLOAT-1.90	95.5	98.1	13775	6.5	.57	1.11	1.6
TOTAL	100.0	100.0	13407	9.0	1.31	1.85	2.8
EPA STANDARD	84.7	88.9	14068	4.5	.30	.84	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.7	66.9	14276	3.1	.17	.53	.7
FLOAT-1.40	86.0	90.5	14085	4.4	.22	.57	.8
FLOAT-1.60	92.2	96.5	13996	5.0	.27	.62	.9
FLOAT-1.90	94.4	97.9	13878	5.8	.32	.67	1.0
TOTAL	100.0	100.0	13377	9.2	1.40	1.75	2.6
EPA STANDARD	99.8	98.2	13807	7.8	.47	.82	1.20

STATE: OHIO
COUNTY: COSHOCTON

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 4.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.0	56.6	13940	2.3	.61	2.28	3.3
FLOAT-1.40	76.9	85.7	13722	3.8	1.20	2.97	4.3
FLOAT-1.60	83.7	92.4	13591	4.7	1.55	3.35	4.9
TOTAL	100.0	100.0	12314	13.5	4.51	6.36	10.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.9	58.5	13969	2.1	.47	2.19	3.1
FLOAT-1.40	75.1	83.7	13809	3.2	.95	2.75	4.0
FLOAT-1.60	83.7	92.2	13649	4.3	1.37	3.20	4.7
TOTAL	100.0	100.0	12386	13.0	4.34	6.17	10.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.2	59.8	13998	1.9	.40	2.13	3.0
FLOAT-1.40	71.4	81.1	13882	2.7	.73	2.54	3.7
FLOAT-1.60	83.3	93.1	13664	4.2	1.12	2.90	4.2
TOTAL	100.0	100.0	12227	14.1	4.60	6.39	10.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: COSHOCTON

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 5.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.7	56.0	13592	2.7	.53	2.31	3.4
FLOAT-1.40	84.2	90.1	13424	3.9	.85	2.61	3.9
FLOAT-1.60	90.3	95.7	13299	4.8	1.05	2.81	4.2
FLOAT-1.90	92.3	97.2	13215	5.4	1.15	2.92	4.4
TOTAL	100.0	100.0	12544	10.2	2.29	4.19	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.3	56.8	13648	2.3	.51	2.29	3.4
FLOAT-1.40	84.3	90.5	13494	3.4	.71	2.46	3.6
FLOAT-1.60	90.3	96.1	13382	4.2	.89	2.63	3.9
FLOAT-1.90	91.7	97.2	13327	4.6	.97	2.72	4.1
TOTAL	100.0	100.0	12572	10.0	2.33	4.23	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.4	36.3	13662	2.2	.39	2.20	3.2
FLOAT-1.40	77.1	82.8	13494	3.4	.63	2.39	3.5
FLOAT-1.60	92.0	96.5	13187	5.6	1.07	2.79	4.2
FLOAT-1.90	93.9	98.0	13117	6.1	1.18	2.91	4.4
TOTAL	100.0	100.0	12572	10.0	2.24	4.08	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: MUSKINGUM

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 2.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	87.9	90.5	13632	3.6	.37	2.00	2.9
FLOAT-1.40	93.4	95.8	13575	4.0	.43	2.08	3.1
FLOAT-1.60	95.7	97.7	13519	4.4	.55	2.21	3.3
FLOAT-1.90	97.1	98.8	13462	4.8	.63	2.31	3.4
TOTAL	100.0	100.0	13236	6.4	1.20	2.99	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.9	78.7	13703	3.1	.26	1.93	2.8
FLOAT-1.40	92.3	95.0	13590	3.9	.36	2.05	3.0
FLOAT-1.60	95.2	97.5	13533	4.3	.45	2.16	3.2
FLOAT-1.90	96.6	98.5	13462	4.8	.53	2.24	3.3
TOTAL	100.0	100.0	13208	6.6	1.26	3.08	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.2	73.8	13717	3.0	.17	1.88	2.7
FLOAT-1.40	92.4	94.9	13590	3.9	.28	2.00	2.9
FLOAT-1.60	95.8	97.8	13519	4.4	.35	2.07	3.1
FLOAT-1.90	97.2	98.9	13462	4.8	.41	2.09	3.1
TOTAL	100.0	100.0	13236	6.4	1.02	2.85	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: PERRY

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 5.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.2	53.0	13593	3.5	.59	1.71	2.5
FLOAT-1.40	65.0	74.7	13324	5.4	.83	1.97	3.0
FLOAT-1.60	85.1	92.5	12602	10.5	1.11	2.22	3.5
TOTAL	100.0	100.0	11597	17.6	3.32	4.49	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.0	53.0	13636	3.2	.56	1.63	2.4
FLOAT-1.40	67.1	77.4	13367	5.1	.80	1.92	2.9
FLOAT-1.60	81.9	90.9	12857	8.7	.99	2.10	3.3
TOTAL	100.0	100.0	11583	17.7	3.16	4.23	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.6	42.9	13706	2.7	.36	1.48	2.2
FLOAT-1.40	59.3	70.3	13494	4.2	.57	1.63	2.4
FLOAT-1.60	76.8	87.7	12999	7.7	.77	1.82	2.8
TOTAL	100.0	100.0	11385	19.1	3.47	4.47	7.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: PERRY

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 5.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.5	35.2	13385	3.3	.45	1.61	2.4
FLOAT-1.40	63.3	73.4	13012	6.0	.99	2.15	3.3
FLOAT-1.60	81.3	90.5	12499	9.7	1.33	2.47	4.0
FLOAT-1.90	86.0	94.0	12264	11.4	1.61	2.74	4.5
TOTAL	100.0	100.0	11226	18.9	3.70	4.82	8.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.1	56.9	13413	3.1	.39	1.54	2.3
FLOAT-1.40	66.7	77.9	13233	4.4	.65	1.82	2.8
FLOAT-1.60	79.4	89.8	12818	7.4	.88	2.03	3.2
FLOAT-1.90	84.8	93.8	12541	9.4	1.15	2.28	3.6
TOTAL	100.0	100.0	11337	18.1	3.47	4.54	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.3	37.9	13496	2.5	.41	1.52	2.3
FLOAT-1.40	58.6	69.3	13178	4.8	.69	1.88	2.9
FLOAT-1.60	77.5	88.1	12666	8.5	1.01	2.19	3.5
FLOAT-1.90	84.6	93.7	12347	10.8	1.26	2.41	3.9
TOTAL	100.0	100.0	11143	19.5	3.58	4.62	8.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: PERRY

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 5.5 %

BENCH: TOP

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.5	39.0	13502	4.5	.05	.69	1.0
FLOAT-1.40	77.7	88.9	13274	6.1	.05	.65	1.0
FLOAT-1.60	82.8	94.2	13189	6.7	.06	.66	1.0
TOTAL	100.0	100.0	11598	17.9	.10	.65	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.1	40.1	13644	3.5	.05	.63	.9
FLOAT-1.40	76.1	87.6	13345	5.6	.04	.64	1.0
FLOAT-1.60	82.2	93.8	13232	6.4	.06	.65	1.0
TOTAL	100.0	100.0	11598	17.9	.12	.64	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.8	35.4	13743	2.8	.05	.63	.9
FLOAT-1.40	70.2	81.4	13416	5.1	.04	.72	1.1
FLOAT-1.60	81.5	93.1	13218	6.5	.06	.73	1.1
TOTAL	100.0	100.0	11570	18.1	.14	.71	1.2
EPA STANDARD	99.4	98.5	11937	14.7	.12	.72	1.20

STATE: OHIO
COUNTY: PERRY

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 6.4 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.0	19.6	13530	3.9	.19	.94	1.4
FLOAT-1.40	59.1	65.4	13000	7.7	.17	.90	1.4
FLOAT-1.60	93.4	96.4	12120	14.0	.17	.84	1.4
TOTAL	100.0	100.0	11743	16.7	.36	1.02	1.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	21.1	24.4	13684	2.8	.13	.94	1.4
FLOAT-1.40	61.5	68.6	13195	6.3	.15	.94	1.4
FLOAT-1.60	89.9	94.0	12372	12.2	.15	.85	1.4
TOTAL	100.0	100.0	11827	16.1	.30	.99	1.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.5	28.7	13782	2.1	.12	.93	1.3
FLOAT-1.40	56.4	64.0	13349	5.2	.14	.93	1.4
FLOAT-1.60	85.9	91.2	12483	11.4	.14	.88	1.4
TOTAL	100.0	100.0	11757	16.6	.38	1.07	1.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: TUSCARA*AS

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.3	65.8	13995	3.2	.46	2.26	3.2
FLOAT-1.40	78.7	87.4	13764	4.8	.66	2.49	3.6
FLOAT-1.60	84.0	92.4	13634	5.7	.84	2.68	3.9
FLOAT-1.90	86.9	94.6	13489	6.7	1.04	2.86	4.2
TOTAL	100.0	100.0	12391	14.3	3.59	5.78	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.4	67.3	14111	2.4	.34	2.20	3.1
FLOAT-1.40	78.3	87.4	13894	3.9	.53	2.41	3.5
FLOAT-1.60	83.5	92.3	13764	4.8	.67	2.56	3.7
FLOAT-1.90	86.6	94.7	13620	5.8	.82	2.68	3.9
TOTAL	100.0	100.0	12449	13.9	3.45	5.61	9.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.8	58.1	14126	2.3	.33	2.20	3.1
FLOAT-1.40	72.6	81.8	13909	3.8	.52	2.43	3.5
FLOAT-1.60	83.5	92.6	13692	5.3	.71	2.61	3.8
FLOAT-1.90	86.4	95.0	13576	6.1	.83	2.70	4.0
TOTAL	100.0	100.0	12347	14.6	3.41	5.53	9.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: TUSCARAWAS

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 3.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.8	67.0	13875	3.2	.40	2.18	3.1
FLOAT-1.40	80.7	87.7	13689	4.5	.61	2.44	3.6
FLOAT-1.60	86.5	93.0	13546	5.5	.84	2.70	4.0
FLOAT-1.90	90.0	95.7	13403	6.5	1.12	3.02	4.5
TOTAL	100.0	100.0	12600	12.1	2.78	5.02	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.0	70.8	13961	2.6	.36	2.16	3.1
FLOAT-1.40	80.1	87.6	13804	3.7	.52	2.36	3.4
FLOAT-1.60	86.3	93.3	13646	4.8	.73	2.59	3.8
FLOAT-1.90	89.8	95.9	13489	5.9	.96	2.84	4.2
TOTAL	100.0	100.0	12629	11.9	2.70	4.94	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.6	58.5	14019	2.2	.31	2.12	3.0
FLOAT-1.40	75.0	82.4	13847	3.4	.48	2.32	3.4
FLOAT-1.60	85.8	92.8	13632	4.9	.68	2.58	3.8
FLOAT-1.90	90.0	96.0	13446	6.2	.88	2.81	4.2
TOTAL	100.0	100.0	12600	12.1	2.64	4.92	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: TUSCARAWAS

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 4.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.2	76.0	14192	2.7	.67	2.04	2.9
FLOAT-1.40	88.8	92.8	14090	3.4	1.05	2.48	3.5
FLOAT-1.60	92.8	96.5	14017	3.9	1.24	2.73	3.9
FLOAT-1.90	94.2	97.6	13959	4.3	1.37	2.90	4.2
TOTAL	100.0	100.0	13477	7.6	2.67	4.49	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	78.2	82.5	14250	2.3	.55	1.88	2.6
FLOAT-1.40	87.7	92.2	14192	2.7	.76	2.12	3.0
FLOAT-1.60	92.2	96.3	14105	3.3	.98	2.40	3.4
FLOAT-1.90	93.7	97.4	14046	3.7	1.11	2.57	3.7
TOTAL	100.0	100.0	13506	7.4	2.69	4.49	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.3	60.8	14280	2.1	.47	1.57	2.2
FLOAT-1.40	86.5	91.2	14192	2.7	.71	1.89	2.7
FLOAT-1.60	91.7	96.2	14119	3.2	.90	2.13	3.0
FLOAT-1.90	93.3	97.3	14046	3.7	1.01	2.27	3.2
TOTAL	100.0	100.0	13463	7.7	2.70	4.35	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: VINTON

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 7.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	84.6	86.0	13854	2.2	.17	.76	1.1
FLOAT-1.40	97.2	98.0	13746	2.9	.28	.86	1.3
FLOAT-1.60	99.1	99.6	13699	3.2	.32	.91	1.3
TOTAL	100.0	100.0	13637	3.6	.41	.99	1.5
EPA STANDARD	94.3	95.3	13782	2.7	.25	.83	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	84.1	85.4	13870	2.1	.11	.84	1.2
FLOAT-1.40	95.9	96.8	13777	2.7	.18	.89	1.3
FLOAT-1.60	99.0	99.5	13714	3.1	.23	.92	1.3
TOTAL	100.0	100.0	13652	3.5	.34	1.03	1.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.8	72.4	13948	1.6	.10	.84	1.2
FLOAT-1.40	94.2	95.5	13823	2.4	.17	.82	1.2
FLOAT-1.60	98.6	99.4	13746	2.9	.21	.85	1.2
TOTAL	100.0	100.0	13637	3.6	.39	1.02	1.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: JEFFERSON

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.9	39.3	14156	4.2	.62	1.65	2.3
FLOAT-1.40	70.5	79.4	13756	6.9	1.23	2.44	3.5
FLOAT-1.60	84.4	92.7	13416	9.2	1.63	2.95	4.4
FLOAT-1.90	88.9	96.1	13209	10.6	1.85	3.19	4.8
TOTAL	100.0	100.0	12217	17.3	2.51	3.80	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.3	53.7	14200	3.9	.49	1.49	2.1
FLOAT-1.40	71.5	81.5	13948	5.6	.85	1.95	2.8
FLOAT-1.60	82.8	92.5	13667	7.5	1.20	2.39	3.5
FLOAT-1.90	87.8	96.4	13431	9.1	1.45	2.68	4.0
TOTAL	100.0	100.0	12232	17.2	2.51	3.82	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.2	35.2	14215	3.8	.43	1.41	2.0
FLOAT-1.40	68.7	78.5	13948	5.6	.59	1.66	2.4
FLOAT-1.60	83.1	92.9	13638	7.7	.88	2.02	3.0
FLOAT-1.90	87.6	96.4	13431	9.1	1.06	2.24	3.3
TOTAL	100.0	100.0	12202	17.4	2.69	3.93	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: LAWRENCE

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 4.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.5	35.3	13567	4.0	.70	1.38	2.0
FLOAT-1.40	74.8	81.1	13114	7.2	1.83	2.78	4.2
FLOAT-1.60	88.1	93.2	12803	9.4	2.31	3.35	5.2
FLOAT-1.90	93.0	96.8	12591	10.9	2.56	3.64	5.8
TOTAL	100.0	100.0	12097	14.4	3.54	4.72	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.0	63.7	13694	3.1	.41	1.03	1.5
FLOAT-1.40	76.6	84.2	13468	4.7	.83	1.56	2.3
FLOAT-1.60	85.8	92.6	13227	6.4	1.18	1.95	2.9
FLOAT-1.90	90.3	95.8	13001	8.0	1.39	2.19	3.4
TOTAL	100.0	100.0	12252	13.3	3.28	4.64	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.6	45.2	13779	2.5	.26	.91	1.3
FLOAT-1.40	66.6	74.6	13526	4.3	.62	1.39	2.1
FLOAT-1.60	83.9	91.3	13128	7.1	1.08	1.92	2.9
FLOAT-1.90	89.6	95.6	12874	8.9	1.29	2.16	3.4
TOTAL	100.0	100.0	12068	14.6	3.54	4.73	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: MAHONING

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 2.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	76.0	77.2	14474	2.2	.83	1.01	1.4
FLOAT-1.40	97.6	98.2	14340	3.1	1.10	1.41	2.0
FLOAT-1.60	98.9	99.4	14325	3.2	1.18	1.50	2.1
TOTAL	100.0	100.0	14251	3.7	1.40	1.72	2.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	85.4	87.2	14578	1.5	.32	.65	.9
FLOAT-1.40	95.2	96.7	14503	2.0	.53	.89	1.2
FLOAT-1.60	97.4	98.6	14459	2.3	.69	1.05	1.5
TOTAL	100.0	100.0	14280	3.5	1.40	1.75	2.5
EPA STANDARD	94.7	96.2	14509	2.0	.51	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	89.3	91.6	14607	1.3	.11	.59	.8
FLOAT-1.40	94.3	96.5	14563	1.6	.20	.68	.9
FLOAT-1.60	96.2	98.1	14518	1.9	.31	.78	1.1
TOTAL	100.0	100.0	14236	3.8	1.39	1.85	2.6
EPA STANDARD	97.7	99.4	14495	2.1	.41	.87	1.20

STATE: OHIO
COUNTY: VINTON

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 4.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.2	7.9	13296	5.2	.68	1.48	2.2
FLOAT-1.40	75.0	78.2	12662	9.7	2.24	3.00	4.7
FLOAT-1.60	94.1	96.3	12422	11.4	3.04	3.83	6.2
TOTAL	100.0	100.0	12140	13.4	4.05	4.80	7.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.3	27.7	13409	4.4	.45	1.23	1.8
FLOAT-1.40	75.2	79.5	12944	7.7	1.27	1.99	3.1
FLOAT-1.60	91.4	94.8	12690	9.5	1.99	2.70	4.3
TOTAL	100.0	100.0	12239	12.7	3.94	4.58	7.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.1	54.0	13366	4.7	.35	1.22	1.8
FLOAT-1.40	73.9	79.7	13113	6.5	.68	1.53	2.3
FLOAT-1.60	87.6	93.0	12901	8.0	1.13	1.96	3.0
TOTAL	100.0	100.0	12155	13.3	4.44	5.17	8.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OHIO
COUNTY: MUSKINGUM

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.0	42.4	13483	3.8	.92	1.79	2.7
FLOAT-1.40	82.5	86.2	12951	7.6	2.04	3.15	4.9
FLOAT-1.60	93.3	96.3	12783	8.8	2.62	3.84	6.0
FLOAT-1.90	96.2	98.4	12670	9.6	2.89	4.16	6.6
TOTAL	100.0	100.0	12390	11.6	3.47	4.85	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.5	74.3	13610	2.9	.27	.97	1.4
FLOAT-1.40	85.2	91.1	13427	4.2	.54	1.30	1.9
FLOAT-1.60	89.4	95.0	13343	4.8	.80	1.62	2.4
FLOAT-1.90	91.2	96.4	13273	5.3	1.00	1.86	2.8
TOTAL	100.0	100.0	12558	10.4	3.25	4.56	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.7	52.7	13708	2.2	.24	.89	1.3
FLOAT-1.40	83.1	89.4	13343	4.8	.58	1.32	2.0
FLOAT-1.60	88.6	94.7	13259	5.4	.74	1.50	2.3
FLOAT-1.90	90.1	95.9	13203	5.8	.87	1.66	2.5
TOTAL	100.0	100.0	12404	11.5	3.53	4.85	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.26

STATE: OHIO
COUNTY: TUSCARAWAS

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.3	73.0	14019	3.8	.37	.87	1.2
FLOAT-1.40	90.4	93.2	13915	4.5	.71	1.22	1.8
FLOAT-1.60	94.7	97.2	13856	4.9	.92	1.49	2.2
FLOAT-1.90	96.2	98.3	13796	5.3	1.07	1.70	2.5
TOTAL	100.0	100.0	13500	7.3	1.72	2.51	3.7
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	83.7	87.4	14108	3.2	.12	.64	.9
FLOAT-1.40	91.5	95.2	14063	3.5	.22	.75	1.1
FLOAT-1.60	93.7	97.2	14019	3.8	.32	.88	1.3
FLOAT-1.90	94.6	97.8	13974	4.1	.41	1.00	1.4
TOTAL	100.0	100.0	13515	7.2	1.65	2.53	3.7
EPA STANDARD	93.1	96.6	14032	3.7	.29	.84	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	74.1	77.8	14137	3.0	.11	.64	.9
FLOAT-1.40	89.6	93.6	14078	3.4	.16	.70	1.0
FLOAT-1.60	93.1	96.9	14019	3.8	.22	.76	1.1
FLOAT-1.90	94.2	97.8	13989	4.0	.27	.81	1.2
TOTAL	100.0	100.0	13470	7.5	1.69	2.61	3.9
EPA STANDARD	94.8	98.3	13981	4.1	.30	.84	1.20

STATE: OHIO
COUNTY: TUSCARAWAS

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 4.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.4	40.6	13805	2.6	.73	2.40	3.5
FLOAT-1.40	71.8	78.3	13508	4.7	1.63	3.54	5.2
FLOAT-1.60	85.8	91.8	13253	6.5	2.36	4.50	6.8
FLOAT-1.90	90.8	95.6	13040	8.0	2.78	5.01	7.7
TOTAL	100.0	100.0	12388	12.6	4.35	6.75	10.9
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.8	56.7	13905	1.9	.49	2.14	3.1
FLOAT-1.40	76.2	83.7	13692	3.4	1.14	2.93	4.3
FLOAT-1.60	85.3	92.4	13494	4.8	1.68	3.62	5.4
FLOAT-1.90	88.9	95.2	13339	5.9	2.00	4.02	6.0
TOTAL	100.0	100.0	12459	12.1	4.11	6.34	10.2
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.9	44.9	13933	1.7	.44	2.12	3.0
FLOAT-1.40	74.9	83.2	13749	3.0	.97	2.79	4.1
FLOAT-1.60	84.2	91.8	13494	4.8	1.58	3.52	5.2
FLOAT-1.90	88.8	95.4	13295	6.2	1.92	3.95	5.9
TOTAL	100.0	100.0	12374	12.7	4.28	6.55	10.6
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

STATE: OHIO
COUNTY: MEIGS

COALBED: CLARION
RAW COAL MOISTURE: 4.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.1	48.1	13452	3.5	.41	1.87	2.8
FLOAT-1.40	66.5	81.7	12755	8.5	.92	2.44	3.8
FLOAT-1.60	75.2	90.4	12490	10.4	1.18	2.66	4.3
FLOAT-1.90	79.6	93.9	12253	12.1	1.28	2.73	4.5
TOTAL	100.0	100.0	10385	25.5	2.14	3.52	6.8
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.0	43.5	13424	3.7	.39	2.10	3.1
FLOAT-1.40	66.8	81.5	12783	8.3	.91	2.53	4.0
FLOAT-1.60	76.8	91.0	12421	10.9	1.23	2.79	4.5
FLOAT-1.90	80.8	94.1	12211	12.4	1.36	2.88	4.7
TOTAL	100.0	100.0	10483	24.8	2.18	3.44	6.6
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.2	28.1	13382	4.0	.23	2.05	3.1
FLOAT-1.40	60.8	72.9	12685	9.0	.59	2.44	3.8
FLOAT-1.60	75.7	88.8	12407	11.0	.84	2.67	4.3
FLOAT-1.90	83.1	94.0	11975	14.1	1.07	2.83	4.7
TOTAL	100.0	100.0	10581	24.1	1.78	3.34	6.3
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

STATE: OHIO
COUNTY: JACKSON

COALBED: BROOKVILLE
RAW COAL MOISTURE: 3.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.7	78.2	13482	3.5	.57	2.68	4.0
FLOAT-1.40	84.5	90.4	13412	4.0	.75	2.87	4.3
FLOAT-1.60	90.5	95.9	13286	4.9	1.04	3.20	4.8
FLOAT-1.90	93.0	97.7	13161	5.8	1.18	3.34	5.1
TOTAL	100.0	100.0	12532	10.3	1.91	4.03	6.4
EPA STANDARD	•••••	•••••	*****	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.7	66.6	13608	2.6	.32	2.46	3.6
FLOAT-1.40	84.4	90.3	13496	3.4	.58	2.64	3.9
FLOAT-1.60	90.0	95.5	13384	4.2	.75	2.87	4.3
FLOAT-1.90	92.8	97.5	13259	5.1	.90	3.02	4.6
TOTAL	100.0	100.0	12616	9.7	1.78	3.81	6.0
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.9	57.4	13636	2.4	.26	2.37	3.5
FLOAT-1.40	79.4	85.3	13510	3.3	.44	2.51	3.7
FLOAT-1.60	89.4	94.9	13342	4.5	.66	2.70	4.0
FLOAT-1.90	92.8	97.4	13203	5.5	.82	2.87	4.3
TOTAL	100.0	100.0	12574	10.0	1.65	3.72	5.9
EPA STANDARD	•••••	•••••	•••••	•••••	•••••	•••••	1.20

STATE: OHIO
COUNTY: MAHONING

COALBED: BROOKVILLE
RAW COAL MOISTURE: 3.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.6	69.6	14456	2.1	.45	1.14	1.6
FLOAT-1.40	86.2	89.7	14175	4.0	.70	1.43	2.0
FLOAT-1.60	95.3	97.7	13969	5.4	1.04	1.87	2.7
FLOAT-1.90	96.7	98.8	13925	5.7	1.19	2.06	3.0
TOTAL	100.0	100.0	13629	7.7	1.65	2.60	3.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.5	70.9	14545	1.5	.18	.85	1.2
FLOAT-1.40	86.1	90.2	14294	3.2	.34	1.04	1.5
FLOAT-1.60	93.5	96.8	14131	4.3	.61	1.35	1.9
FLOAT-1.90	95.1	98.1	14072	4.7	.75	1.52	2.2
TOTAL	100.0	100.0	13644	7.6	1.72	2.67	3.9
EPA STANDARD	69.2	73.6	14517	1.7	.20	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.7	71.2	14545	1.5	.18	.85	1.2
FLOAT-1.40	85.8	90.3	14338	2.9	.26	.93	1.3
FLOAT-1.60	92.9	96.7	14190	3.9	.39	1.07	1.5
FLOAT-1.90	94.3	97.8	14131	4.3	.49	1.19	1.7
TOTAL	100.0	100.0	13629	7.7	1.72	2.67	3.9
EPA STANDARD	72.4	76.9	14494	1.9	.20	.87	1.20

STATE: OKLAHOMA
COUNTY: CRAIG

COALBED: FORT SCOTT
RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	84.0	86.6	14415	3.4	.90	2.84	3.9
FLOAT-1.40	93.3	95.6	14326	4.0	1.08	3.01	4.2
FLOAT-1.60	96.0	97.8	14253	4.5	1.19	3.09	4.3
TOTAL	100.0	100.0	13987	6.3	1.32	3.17	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	82.9	86.1	14518	2.7	.83	2.79	3.8
FLOAT-1.40	90.9	93.8	14430	3.3	1.00	2.94	4.1
FLOAT-1.60	94.5	97.0	14356	3.8	1.14	3.06	4.3
TOTAL	100.0	100.0	13987	6.3	1.29	3.15	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	81.3	85.0	14548	2.5	.75	2.75	3.8
FLOAT-1.40	89.6	93.2	14476	3.0	.90	2.88	4.0
FLOAT-1.60	93.2	96.4	14386	3.6	1.04	3.01	4.2
TOTAL	100.0	100.0	13913	6.8	1.34	3.21	4.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OKLAHOMA
COUNTY: NOWATA

COALBED: FORT SCOTT
RAW COAL MOISTURE: 3.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	77.5	81.7	14365	3.3	1.27	3.25	4.5
FLOAT-1.40	90.6	94.9	14276	3.9	1.63	3.61	5.1
FLOAT-1.60	93.4	97.5	14217	4.3	1.77	3.75	5.3
TOTAL	100.0	100.0	13625	8.3	2.53	4.45	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.5	79.8	14439	2.8	1.10	3.05	4.2
FLOAT-1.40	89.9	94.3	14335	3.5	1.48	3.42	4.8
FLOAT-1.60	93.4	97.4	14261	4.0	1.69	3.63	5.1
TOTAL	100.0	100.0	13669	8.0	2.48	4.27	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.6	76.9	14513	2.3	.89	2.86	3.9
FLOAT-1.40	88.1	92.7	14410	3.0	1.27	3.22	4.5
FLOAT-1.60	92.8	97.0	14321	3.6	1.54	3.48	4.9
TOTAL	100.0	100.0	13699	7.8	2.18	4.11	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OKLAHOMA
COUNTY: ROGERS

COALBED: FORT SCOTT
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.4	65.4	14215	3.5	1.34	3.30	4.6
FLOAT-1.40	87.7	93.3	13964	5.2	2.13	4.17	6.0
FLOAT-1.60	91.0	96.3	13891	5.7	2.29	4.35	6.3
FLOAT-1.90	92.2	97.2	13832	6.1	2.37	4.42	6.4
TOTAL	100.0	100.0	13125	10.9	3.72	5.72	8.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.4	77.1	14259	3.2	1.27	3.25	4.6
FLOAT-1.40	86.5	92.6	14126	4.1	1.62	3.65	5.2
FLOAT-1.60	90.2	95.9	14038	4.7	1.79	3.86	5.5
FLOAT-1.90	91.5	96.9	13979	5.1	1.88	3.97	5.7
TOTAL	100.0	100.0	13199	10.4	3.58	5.57	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.8	74.0	14288	3.0	1.17	3.22	4.5
FLOAT-1.40	82.6	89.4	14170	3.8	1.52	3.63	5.1
FLOAT-1.60	88.7	95.2	14053	4.6	1.79	3.96	5.6
FLOAT-1.90	90.9	96.9	13964	5.2	1.93	4.13	5.9
TOTAL	100.0	100.0	13095	11.1	3.78	5.86	8.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OKLAHOMA
COUNTY: CRAIG

COALBED: CAVANAL
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.5	17.1	13913	5.7	1.22	2.61	3.8
FLOAT-1.40	77.1	81.9	13392	9.3	2.94	4.29	6.4
FLOAT-1.60	90.2	94.2	13175	10.8	3.66	5.00	7.6
TOTAL	100.0	100.0	12611	14.7	4.57	5.95	9.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.8	37.4	14014	5.0	1.08	2.50	3.6
FLOAT-1.40	75.8	81.3	13594	7.9	2.27	3.65	5.4
FLOAT-1.60	88.6	93.5	13363	9.5	3.09	4.44	6.6
TOTAL	100.0	100.0	12668	14.3	4.49	5.92	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.4	36.5	14101	4.4	.90	2.32	3.3
FLOAT-1.40	69.0	75.6	13710	7.1	1.71	3.09	4.5
FLOAT-1.60	84.5	90.9	13450	8.9	2.65	3.94	5.9
TOTAL	100.0	100.0	12509	15.4	4.80	6.14	9.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: OKLAHOMA
COUNTY: ROGERS

COALBED: CAVANAL
RAW COAL MOISTURE: 1.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	79.0	82.0	14295	2.8	.04	.56	.8
FLOAT-1.40	94.2	96.3	14075	4.3	.05	.56	.8
FLOAT-1.60	97.5	99.0	13972	5.0	.05	.56	.8
FLOAT-1.90	98.1	99.4	13943	5.2	.06	.56	.8
TOTAL	100.0	100.0	13766	6.4	.07	.57	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	83.1	86.5	14339	2.5	.03	.56	.8
FLOAT-1.40	91.6	94.5	14222	3.3	.03	.56	.8
FLOAT-1.60	96.1	98.3	14090	4.2	.04	.56	.8
FLOAT-1.90	97.5	99.2	14016	4.7	.05	.56	.8
TOTAL	100.0	100.0	13781	6.3	.06	.57	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	77.9	81.4	14384	2.2	0.00	.55	.8
FLOAT-1.40	88.9	92.3	14295	2.8	.01	.55	.8
FLOAT-1.60	95.1	97.6	14134	3.9	.02	.55	.8
FLOAT-1.90	96.9	98.9	14045	4.5	.02	.55	.8
TOTAL	100.0	100.0	13766	6.4	.06	.58	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: OKLAHOMA
COUNTY: HASKELL

COALBED: STIGLER
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	84.4	86.0	15209	2.2	.08	.63	.8
FLOAT-1.40	95.9	97.2	15131	2.7	.11	.66	.9
FLOAT-1.60	98.2	99.1	15069	3.1	.14	.68	.9
FLOAT-1.90	98.9	99.6	15038	3.3	.15	.69	.9
TOTAL	100.0	100.0	14929	4.0	.16	.70	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	89.7	91.4	15224	2.1	.03	.58	.8
FLOAT-1.40	94.7	96.3	15193	2.3	.05	.59	.8
FLOAT-1.60	97.3	98.5	15131	2.7	.07	.61	.8
FLOAT-1.90	98.5	99.4	15085	3.0	.09	.63	.8
TOTAL	100.0	100.0	14945	3.9	.15	.69	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	88.2	90.1	15256	1.9	.01	.56	.7
FLOAT-1.40	93.8	95.7	15224	2.1	.02	.57	.7
FLOAT-1.60	96.5	98.1	15178	2.4	.04	.58	.8
FLOAT-1.90	97.8	99.0	15116	2.8	.06	.60	.8
TOTAL	100.0	100.0	14929	4.0	.16	.70	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: OKLAHOMA
COUNTY: HASKELL

COALBED: UPPER AND LOWER HARTSHORNE
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.6	56.6	14776	3.0	.21	.75	1.0
FLOAT-1.40	72.2	86.3	14532	4.6	.56	1.12	1.5
FLOAT-1.60	77.7	92.0	14395	5.5	.68	1.26	1.8
FLOAT-1.90	81.3	94.7	14167	7.0	.73	1.32	1.9
TOTAL	100.0	100.0	12156	20.2	.71	1.21	2.0
EPA STANDARD	57.5	69.6	14690	3.5	.34	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.0	68.3	14837	2.6	.18	.72	1.0
FLOAT-1.40	72.0	87.0	14685	3.6	.39	.95	1.3
FLOAT-1.60	76.9	92.0	14548	4.5	.51	1.07	1.5
FLOAT-1.90	80.1	94.6	14350	5.8	.55	1.12	1.6
TOTAL	100.0	100.0	12156	20.2	.62	1.09	1.8
EPA STANDARD	68.3	82.8	14729	3.2	.33	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.6	56.9	14837	2.6	.13	.69	.9
FLOAT-1.40	68.1	82.0	14639	3.9	.33	.90	1.2
FLOAT-1.60	76.6	91.0	14441	5.2	.45	1.03	1.4
FLOAT-1.90	81.6	95.2	14182	6.9	.52	1.09	1.5
TOTAL	100.0	100.0	12156	20.2	.62	1.14	1.9
EPA STANDARD	66.4	80.1	14659	3.7	.31	.88	1.20

STATE: PA. (BITUMINOUS) COALBED: SEWICKLEY
COUNTY: GREENE RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.1	26.1	14395	4.4	.52	1.76	2.4
FLOAT-1.40	83.0	86.6	13873	7.9	1.05	2.29	3.3
FLOAT-1.60	94.1	96.5	13634	9.5	1.30	2.52	3.7
TOTAL	100.0	100.0	13290	11.8	2.46	3.73	5.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.0	41.0	14410	4.3	.43	1.68	2.3
FLOAT-1.40	84.6	88.5	13962	7.3	.84	2.05	2.9
FLOAT-1.60	93.9	96.6	13738	8.8	1.13	2.32	3.4
TOTAL	100.0	100.0	13350	11.4	2.23	3.45	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.8	49.0	14530	3.5	.19	1.50	2.1
FLOAT-1.40	83.2	87.9	14037	6.8	.62	1.84	2.6
FLOAT-1.60	91.5	95.2	13828	8.2	.77	2.01	2.9
TOTAL	100.0	100.0	13290	11.8	2.45	3.68	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: SEWICKLEY
COUNTY: GREENE RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.0	21.2	13794	4.7	.30	.80	1.2
FLOAT-1.40	54.8	79.0	13099	9.5	.47	1.07	1.6
FLOAT-1.60	61.4	86.8	12853	11.2	.63	1.20	1.9
FLOAT-1.90	64.6	89.3	12563	13.2	.71	1.25	2.0
TOTAL	100.0	100.0	9090	37.2	.95	1.31	2.9
EPA STANDARD	18.9	28.3	13735	5.2	.31	.82	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.7	23.6	13779	4.8	.28	.77	1.1
FLOAT-1.40	52.8	74.7	12940	10.6	.37	.99	1.5
FLOAT-1.60	60.1	83.2	12665	12.5	.53	1.11	1.8
FLOAT-1.90	65.1	86.3	12129	16.2	.61	1.16	1.9
TOTAL	100.0	100.0	9148	36.8	.92	1.30	2.8
EPA STANDARD	25.6	37.5	13612	6.2	.28	.81	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.4	18.7	13808	4.6	.25	.48	.7
FLOAT-1.40	45.5	65.2	13113	9.4	.29	.79	1.2
FLOAT-1.60	60.6	83.4	12592	13.0	.41	.92	1.5
FLOAT-1.90	68.2	89.6	12013	17.0	.54	1.02	1.7
TOTAL	100.0	100.0	9148	36.8	.97	1.30	2.8
EPA STANDARD	45.2	64.8	13120	9.3	.29	.79	1.20

STATE: PA. (BITUMINOUS)
COUNTY: GREENE

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.1	57.4	14426	4.5	.37	1.62	2.2
FLOAT-1.40	91.4	93.6	14191	6.1	.66	1.89	2.7
FLOAT-1.60	95.7	97.4	14103	6.7	.76	2.00	2.8
TOTAL	100.0	100.0	13854	8.4	1.42	2.67	3.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.7	64.1	14440	4.4	.26	1.58	2.2
FLOAT-1.40	91.5	93.6	14221	5.9	.48	1.83	2.6
FLOAT-1.60	96.0	97.5	14118	6.6	.63	1.98	2.8
TOTAL	100.0	100.0	13898	8.1	1.22	2.59	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.9	63.7	14514	3.9	.21	1.44	2.0
FLOAT-1.40	90.2	92.6	14250	5.7	.38	1.60	2.2
FLOAT-1.60	95.5	97.5	14177	6.2	.56	1.75	2.5
TOTAL	100.0	100.0	13884	8.2	1.30	2.60	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: GREENE

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.2	40.5	14601	3.9	.24	1.03	1.4
FLOAT-1.40	89.8	92.3	14146	6.9	.72	1.60	2.3
FLOAT-1.60	95.4	97.1	14010	7.8	.90	1.78	2.5
TOTAL	100.0	100.0	13768	9.4	1.34	2.21	3.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.6	42.1	14646	3.6	.20	.98	1.3
FLOAT-1.40	88.6	91.2	14192	6.6	.61	1.41	2.0
FLOAT-1.60	95.2	97.1	14056	7.5	.82	1.63	2.3
TOTAL	100.0	100.0	13783	9.3	1.32	2.15	3.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.5	52.3	14601	3.9	.11	.90	1.2
FLOAT-1.40	87.5	90.3	14252	6.2	.38	1.28	1.8
FLOAT-1.60	95.7	97.6	14086	7.3	.50	1.43	2.0
TOTAL	100.0	100.0	13813	9.1	1.26	2.19	3.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: GREENE

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.8	56.6	14462	4.1	.65	1.78	2.5
FLOAT-1.40	85.3	90.1	14250	5.5	1.15	2.26	3.2
FLOAT-1.60	92.2	96.3	14098	6.5	1.44	2.55	3.6
TOTAL	100.0	100.0	13493	10.5	2.43	3.48	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.3	63.7	14537	3.6	.41	1.62	2.2
FLOAT-1.40	84.5	89.6	14341	4.9	.77	1.94	2.7
FLOAT-1.60	91.0	95.4	14174	6.0	1.06	2.21	3.1
TOTAL	100.0	100.0	13524	10.3	2.29	3.41	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.2	66.3	14613	3.1	.32	1.52	2.1
FLOAT-1.40	85.0	90.8	14416	4.4	.21	1.57	2.2
FLOAT-1.60	89.8	95.1	14295	5.2	.65	1.79	2.5
TOTAL	100.0	100.0	13493	10.5	2.45	3.56	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: WASHINGTON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.6	57.9	14489	2.9	.11	.89	1.2
FLOAT-1.40	86.9	90.7	14252	4.5	.44	1.28	1.8
FLOAT-1.60	93.7	96.6	14090	5.6	.65	1.50	2.1
TOTAL	100.0	100.0	13661	8.5	.82	1.67	2.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.2	58.3	14429	3.3	.17	.95	1.3
FLOAT-1.40	88.8	92.4	14208	4.8	.39	1.23	1.7
FLOAT-1.60	93.2	96.3	14119	5.4	.53	1.37	1.9
TOTAL	100.0	100.0	13661	8.5	.86	1.69	2.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.3	63.5	14474	3.0	.17	1.05	1.5
FLOAT-1.40	86.1	89.8	14341	3.9	.25	1.06	1.5
FLOAT-1.60	93.8	96.7	14178	5.0	.37	1.27	1.8
TOTAL	100.0	100.0	13750	7.9	.91	1.78	2.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: WASHINGTON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.8	58.8	14447	3.3	.26	1.09	1.5
FLOAT-1.40	90.3	93.8	14239	4.7	.46	1.33	1.9
FLOAT-1.60	94.3	97.3	14134	5.4	.53	1.41	2.0
TOTAL	100.0	100.0	13703	8.3	.80	1.67	2.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.9	63.0	14492	3.0	.20	1.06	1.5
FLOAT-1.40	88.6	93.2	14253	4.6	.37	1.26	1.8
FLOAT-1.60	92.8	96.8	14134	5.4	.47	1.36	1.9
TOTAL	100.0	100.0	13554	9.3	.77	1.64	2.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.9	65.1	14566	2.5	.16	.99	1.4
FLOAT-1.40	88.7	93.1	14298	4.3	.24	1.19	1.7
FLOAT-1.60	93.7	97.2	14134	5.4	.40	1.29	1.8
TOTAL	100.0	100.0	13628	8.8	.83	1.72	2.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: WASHINGTON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.8	59.7	14570	3.6	.21	.85	1.2
FLOAT-1.40	89.2	94.0	14343	5.1	.75	1.34	1.9
FLOAT-1.60	92.8	97.2	14268	5.6	.83	1.41	2.0
TOTAL	100.0	100.0	13617	9.9	.89	1.43	2.1
EPA STANDARD	57.8	61.8	14560	3.6	.24	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.3	66.0	14646	3.1	.22	.77	1.1
FLOAT-1.40	87.3	92.7	14449	4.4	.52	1.06	1.5
FLOAT-1.60	91.5	96.6	14358	5.0	.65	1.20	1.7
TOTAL	100.0	100.0	13602	10.0	.86	1.37	2.0
EPA STANDARD	73.3	78.5	14576	3.6	.33	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.7	56.1	14737	2.5	.14	.71	1.0
FLOAT-1.40	84.1	89.6	14480	4.2	.22	.80	1.1
FLOAT-1.60	91.6	96.5	14313	5.3	.34	.91	1.3
TOTAL	100.0	100.0	13587	10.1	.96	1.48	2.2
EPA STANDARD	88.4	93.5	14385	4.9	.29	.86	1.20

STATE:	PA. (BITUMINOUS)
COUNTY:	ALLEGHENY

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.1	34.9	14350	3.8	.34	.88	1.2
FLOAT-1.40	63.4	76.2	13903	6.8	.77	1.37	2.0
FLOAT-1.60	78.7	91.4	13425	10.0	.93	1.52	2.3
FLOAT-1.90	86.4	97.0	12978	13.0	1.01	1.59	2.5
TOTAL	100.0	100.0	11560	22.5	1.34	1.90	3.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.8	50.9	14380	3.6	.10	.59	.8
FLOAT-1.40	61.9	75.8	14126	5.3	.27	.80	1.1
FLOAT-1.60	76.3	90.2	13634	8.6	.46	1.00	1.5
FLOAT-1.90	82.8	95.1	13246	11.2	.56	1.09	1.6
TOTAL	100.0	100.0	11531	22.7	1.49	1.97	3.4
EPA STANDARD	65.5	79.8	14027	5.8	.31	.84	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.7	42.1	14469	3.0	.16	.60	.8
FLOAT-1.40	58.4	71.3	14141	5.2	.24	.68	1.0
FLOAT-1.60	75.5	88.6	13589	8.9	.35	.79	1.2
FLOAT-1.90	84.5	95.5	13082	12.3	.44	.86	1.3
TOTAL	100.0	100.0	11575	22.4	1.41	1.87	3.2
EPA STANDARD	78.0	90.8	13465	9.7	.37	.81	1.20

STATE:	PA. (BITUMINOUS)
COUNTY:	ARMSTRONG

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.4	52.1	14586	3.8	.20	.98	1.3
FLOAT-1.40	73.4	82.3	14252	6.0	.44	1.19	1.7
FLOAT-1.60	84.3	92.2	13887	8.4	.59	1.30	1.9
TOTAL	100.0	100.0	12703	16.2	1.05	1.70	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.2	59.0	14677	3.2	.10	.83	1.1
FLOAT-1.40	73.5	83.1	14388	5.1	.21	.95	1.3
FLOAT-1.60	83.4	92.0	14039	7.4	.32	1.04	1.5
TOTAL	100.0	100.0	12733	16.0	.99	1.63	2.6
EPA STANDARD	60.6	69.5	14572	3.8	.14	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.3	55.9	14768	2.6	.06	.83	1.1
FLOAT-1.40	70.2	79.8	14495	4.4	.11	.87	1.2
FLOAT-1.60	83.3	91.7	14039	7.4	.19	.89	1.3
TOTAL	100.0	100.0	12749	15.9	1.04	1.70	2.7
EPA STANDARD	70.1	79.7	14496	4.4	.11	.87	1.20

STATE: PA. (BITUMINOUS)
COUNTY: ARMSTRONG
COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.9	44.2	14459	3.5	.75	1.88	2.6
FLOAT-1.40	84.5	87.4	14161	5.5	2.14	3.16	4.5
FLOAT-1.60	95.3	97.3	13982	6.7	2.63	3.60	5.1
TOTAL	100.0	100.0	13699	8.6	3.30	4.26	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.1	68.9	14534	3.0	.58	1.71	2.4
FLOAT-1.40	85.6	89.5	14355	4.2	1.18	2.26	3.1
FLOAT-1.60	92.5	95.7	14206	5.2	1.66	2.68	3.8
TOTAL	100.0	100.0	13729	8.4	3.25	4.27	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.9	69.3	14638	2.3	.24	1.28	1.7
FLOAT-1.40	82.3	87.0	14474	3.4	.61	1.60	2.2
FLOAT-1.60	90.2	94.4	14340	4.3	.93	1.94	2.7
TOTAL	100.0	100.0	13699	8.6	3.32	4.27	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: ARMSTRONG
COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.0	49.2	14557	3.3	.48	1.39	1.9
FLOAT-1.40	78.1	83.0	14140	6.1	.92	1.92	2.7
FLOAT-1.60	91.5	94.9	13797	8.4	1.33	2.34	3.4
TOTAL	100.0	100.0	13306	11.7	2.44	3.48	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.5	59.0	14646	2.7	.17	1.30	1.8
FLOAT-1.40	79.1	85.0	14274	5.2	.52	1.71	2.4
FLOAT-1.60	89.7	94.3	13976	7.2	.89	2.03	2.9
TOTAL	100.0	100.0	13291	11.8	2.52	3.55	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.7	59.5	14691	2.4	.17	.99	1.3
FLOAT-1.40	77.0	83.5	14378	4.5	.37	1.27	1.8
FLOAT-1.60	88.8	93.9	14021	6.9	.76	1.74	2.5
TOTAL	100.0	100.0	13261	12.0	2.50	3.41	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: ARMSTRONG

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.9	62.6	14596	3.9	.44	1.24	1.7
FLOAT-1.40	81.3	87.7	14307	5.8	.53	1.32	1.8
FLOAT-1.60	88.3	94.0	14110	7.1	.65	1.44	2.0
FLOAT-1.90	92.9	97.3	13882	8.6	.80	1.58	2.3
TOTAL	100.0	100.0	13259	12.7	1.54	2.43	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.8	66.7	14732	3.0	.17	.87	1.2
FLOAT-1.40	80.2	87.8	14459	4.8	.24	.93	1.3
FLOAT-1.60	86.9	93.8	14261	6.1	.34	1.02	1.4
FLOAT-1.90	91.2	96.8	14018	7.7	.45	1.12	1.6
TOTAL	100.0	100.0	13213	13.0	1.64	2.53	3.8
EPA STANDARD	64.4	71.5	14683	3.4	.18	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.9	62.2	14748	2.9	.12	.82	1.1
FLOAT-1.40	79.8	87.0	14444	4.9	.20	.88	1.2
FLOAT-1.60	87.6	94.2	14246	6.2	.27	.94	1.3
FLOAT-1.90	91.6	97.0	14018	7.7	.34	1.01	1.4
TOTAL	100.0	100.0	13244	12.8	1.60	2.47	3.7
EPA STANDARD	76.8	84.0	14497	4.6	.19	.87	1.20

STATE: PA. (BITUMINOUS)
COUNTY: ARMSTRONG

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.8	52.9	14416	3.6	.27	1.03	1.4
FLOAT-1.40	72.3	81.3	14027	6.2	.54	1.35	1.9
FLOAT-1.60	83.4	91.7	13713	8.3	.81	1.70	2.5
FLOAT-1.90	89.6	96.0	13369	10.6	1.01	1.89	2.8
TOTAL	100.0	100.0	12471	16.6	2.24	3.32	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.7	62.0	14460	3.3	.16	.92	1.3
FLOAT-1.40	74.2	84.0	14161	5.3	.35	1.15	1.6
FLOAT-1.60	82.6	92.0	13937	6.8	.57	1.43	2.1
FLOAT-1.90	88.2	96.0	13623	8.9	.73	1.59	2.3
TOTAL	100.0	100.0	12516	16.3	2.18	3.28	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.1	60.3	14460	3.3	.13	.92	1.3
FLOAT-1.40	71.1	80.7	14176	5.2	.28	1.12	1.6
FLOAT-1.60	82.1	91.5	13922	6.9	.46	1.31	1.9
FLOAT-1.90	88.0	96.1	13638	8.8	.61	1.47	2.2
TOTAL	100.0	100.0	12486	16.5	2.18	3.33	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: ARMSTRONG

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.5	45.8	14466	4.1	.25	.95	1.3
FLOAT-1.40	67.6	80.2	14043	6.9	.45	1.11	1.6
FLOAT-1.60	78.5	91.0	13726	9.0	.60	1.25	1.8
FLOAT-1.90	84.4	95.5	13395	11.2	.78	1.42	2.1
TOTAL	100.0	100.0	11841	21.5	1.62	2.23	3.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.3	57.9	14481	4.0	.17	.84	1.2
FLOAT-1.40	67.9	81.5	14194	5.9	.24	.89	1.3
FLOAT-1.60	77.6	91.2	13892	7.9	.35	.99	1.4
FLOAT-1.90	82.9	95.2	13576	10.0	.45	1.07	1.6
TOTAL	100.0	100.0	11826	21.6	1.59	2.22	3.8
EPA STANDARD	57.4	69.5	14359	4.9	.20	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.1	46.8	14601	3.2	.08	.80	1.1
FLOAT-1.40	63.1	75.5	14224	5.7	.15	.84	1.2
FLOAT-1.60	78.5	90.9	13757	8.8	.24	.90	1.3
FLOAT-1.90	84.8	95.7	13410	11.1	.36	1.00	1.5
TOTAL	100.0	100.0	11886	21.2	1.60	2.27	3.8
EPA STANDARD	67.0	79.9	14155	6.2	.16	.85	1.20

STATE: PA. (BITUMINOUS)
COUNTY: ARMSTRONG

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.1	45.4	14204	4.2	.25	.99	1.4
FLOAT-1.40	54.1	70.6	13937	6.0	.41	1.19	1.7
FLOAT-1.60	66.1	83.6	13507	8.9	.57	1.36	2.0
FLOAT-1.90	76.6	92.3	12870	13.2	.76	1.52	2.4
TOTAL	100.0	100.0	10675	28.0	1.15	1.79	3.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.3	49.9	14249	3.9	.24	.96	1.3
FLOAT-1.40	56.5	74.3	13997	5.6	.29	1.03	1.5
FLOAT-1.60	66.4	84.9	13611	8.2	.37	1.11	1.6
FLOAT-1.90	75.1	91.9	13033	12.1	.45	1.16	1.8
TOTAL	100.0	100.0	10646	28.2	1.25	1.85	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.7	40.0	14397	2.9	.09	.79	1.1
FLOAT-1.40	55.3	72.6	14026	5.4	.12	.85	1.2
FLOAT-1.60	66.5	84.5	13582	8.4	.18	.89	1.3
FLOAT-1.90	76.5	92.4	12914	12.9	.25	.94	1.5
TOTAL	100.0	100.0	10690	27.9	1.17	1.78	3.3
EPA STANDARD	53.3	70.1	14065	5.1	.11	.84	1.20

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STATE:     PA. (BITUMINOUS)                                        COALBED: UPPER FREEPORT
COUNTY:    BUTLER                                                  RAW COAL MOISTURE:  1.7 %
                                      CUMULATIVE WASHABILITY DATA

                                   SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT              RECOVERY,%        BTU/LB       ASH,%        SULFUR,%          LB SO2/M BTU
                  WEIGHT    BTU                              PYRITIC    TOTAL
FLOAT-1.30         26.4     32.1       14423         3.4         .30       .87            1.2
FLOAT-1.40         66.3     77.2       13822         7.4         .49      1.07            1.5
FLOAT-1.60         81.0     91.0       13341        10.6         .64      1.20            1.8
TOTAL             100.0    100.0       11870        20.4         .80      1.28            2.2

EPA STANDARD      *****    *****       *****       *****       *****     *****            1.20

                                   SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT              RECOVERY,%        BTU/LB       ASH,%        SULFUR,%          LB SO2/M BTU
                  WEIGHT    BTU                              PYRITIC    TOTAL
FLOAT-1.30         42.9     51.6       14468         3.1         .08       .69            1.0
FLOAT-1.40         66.6     78.2       14107         5.5         .26       .84            1.2
FLOAT-1.60         79.9     90.6       13627         8.7         .40       .98            1.4
TOTAL             100.0    100.0       12020        19.4         .75      1.32            2.2

EPA STANDARD       67.3     78.9       14090         5.6         .27       .85            1.20

                                   SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT              RECOVERY,%        BTU/LB       ASH,%        SULFUR,%          LB SO2/M BTU
                  WEIGHT    BTU                              PYRITIC    TOTAL
FLOAT-1.30         43.2     52.8       14543         2.6         .04       .80            1.1
FLOAT-1.40         66.3     78.9       14167         5.1         .09       .73            1.0
FLOAT-1.60         77.6     89.3       13687         8.3         .18       .77            1.1
TOTAL             100.0    100.0       11900        20.2         .82      1.33            2.2

EPA STANDARD       85.5     96.4       13566        10.6         .25       .80            1.20

STATE:     PA. (BITUMINOUS)                                        COALBED: UPPER FREEPORT
COUNTY:    CAMBRIA                                                 RAW COAL MOISTURE:   .5 %
                                      CUMULATIVE WASHABILITY DATA

                                   SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT              RECOVERY,%        BTU/LB       ASH,%        SULFUR,%          LB SO2/M BTU
                  WEIGHT    BTU                              PYRITIC    TOTAL
FLOAT-1.30         45.4     53.6       14675         3.9         .71      1.47            2.0
FLOAT-1.40         69.4     79.8       14293         6.4        1.07      1.90            2.7
FLOAT-1.60         81.4     91.4       13957         8.6        1.41      2.30            3.3
FLOAT-1.90         85.4     94.5       13758         9.9        1.71      2.68            3.9
TOTAL             100.0    100.0       12430        18.6        3.23      4.47            7.2

EPA STANDARD      *****    *****       *****       *****       *****     *****            1.20

                                   SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT              RECOVERY,%        BTU/LB       ASH,%        SULFUR,%          LB SO2/M BTU
                  WEIGHT    BTU                              PYRITIC    TOTAL
FLOAT-1.30         48.5     57.8       14751         3.4         .38      1.15            1.6
FLOAT-1.40         69.2     80.7       14430         5.5         .53      1.32            1.8
FLOAT-1.60         79.2     90.5       14140         7.4         .71      1.53            2.2
FLOAT-1.90         83.3     93.8       13926         8.8         .92      1.78            2.6
TOTAL             100.0    100.0       12369        19.0        3.30      4.59            7.4

EPA STANDARD      *****    *****       *****       *****       *****     *****            1.20

                                   SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT              RECOVERY,%        BTU/LB       ASH,%        SULFUR,%          LB SO2/M BTU
                  WEIGHT    BTU                              PYRITIC    TOTAL
FLOAT-1.30         36.2     42.8       14766         3.3         .36      1.12            1.5
FLOAT-1.40         69.6     80.7       14476         5.2         .52      1.29            1.8
FLOAT-1.60         80.0     91.0       14201         7.0         .67      1.45            2.0
FLOAT-1.90         84.1     94.3       14003         8.3         .83      1.62            2.3
TOTAL             100.0    100.0       12491        18.2        3.18      4.40            7.0

EPA STANDARD      *****    *****       *****       *****       *****     *****            1.20
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STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.4	36.3	14838	3.8	.11	.64	.9
FLOAT-1.40	83.7	86.7	14124	8.4	.24	.73	1.0
FLOAT-1.60	95.9	97.5	13876	10.0	.40	.87	1.3
TOTAL	100.0	100.0	13643	11.5	.96	1.43	2.1
EPA STANDARD	92.9	94.9	13937	9.6	.36	.83	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.2	47.3	14885	3.5	.07	.51	.7
FLOAT-1.40	82.7	87.0	14311	7.2	.07	.54	.8
FLOAT-1.60	93.6	96.4	14000	9.2	.11	.59	.8
TOTAL	100.0	100.0	13597	11.8	1.01	1.48	2.2
EPA STANDARD	95.3	97.3	13892	9.9	.30	.80	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.2	48.4	14962	3.0	.08	.56	.7
FLOAT-1.40	78.3	83.2	14528	5.8	.09	.52	.7
FLOAT-1.60	92.3	95.7	14171	8.1	.14	.53	.7
TOTAL	100.0	100.0	13674	11.3	.99	1.44	2.1
EPA STANDARD	94.9	97.1	14006	9.2	.70	.73	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.5	52.8	14992	2.6	.04	.66	.9
FLOAT-1.40	78.1	86.0	14545	5.5	.22	.83	1.1
FLOAT-1.60	89.4	96.2	14206	7.7	.25	.84	1.2
TOTAL	100.0	100.0	13205	14.2	.25	.81	1.2
EPA STANDARD	93.8	98.6	13812	9.7	.25	.83	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.9	53.9	15023	2.4	.04	.59	.8
FLOAT-1.40	77.4	86.3	14591	5.2	.17	.79	1.1
FLOAT-1.60	87.0	95.2	14314	7.0	.24	.86	1.2
TOTAL	100.0	100.0	13081	15.0	.26	.84	1.3
EPA STANDARD	86.9	95.1	14318	7.0	.24	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.1	52.3	14992	2.6	.04	.57	.8
FLOAT-1.40	73.0	81.2	14684	4.6	.14	.76	1.0
FLOAT-1.60	89.2	96.4	14268	7.3	.26	.83	1.2
TOTAL	100.0	100.0	13205	14.2	.27	.84	1.3
EPA STANDARD	93.1	98.5	13911	9.1	.27	.84	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.2	35.7	14601	5.3	.84	1.67	2.3
FLOAT-1.40	68.7	73.9	14184	8.0	1.08	1.96	2.8
FLOAT-1.60	90.3	94.1	13737	10.9	1.37	2.29	3.3
FLOAT-1.90	94.8	97.6	13568	12.0	1.61	2.60	3.8
TOTAL	100.0	100.0	13182	14.5	2.25	3.38	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.2	42.8	14801	4.0	.53	1.29	1.7
FLOAT-1.40	71.5	77.4	14292	7.3	.75	1.57	2.2
FLOAT-1.60	89.5	94.0	13861	10.1	1.04	1.90	2.7
FLOAT-1.90	93.7	97.0	13660	11.4	1.22	2.10	3.1
TOTAL	100.0	100.0	13197	14.4	2.06	3.21	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.9	52.5	14801	4.0	.37	1.04	1.4
FLOAT-1.40	79.0	85.3	14261	7.5	.59	1.32	1.9
FLOAT-1.60	89.1	94.2	13968	9.4	.73	1.47	2.1
FLOAT-1.90	92.8	96.8	13783	10.6	.82	1.57	2.3
TOTAL	100.0	100.0	13213	14.3	2.29	3.36	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.6	40.4	14921	3.1	.64	1.26	1.7
FLOAT-1.40	75.2	82.0	14337	6.9	1.04	1.61	2.2
FLOAT-1.60	86.4	92.3	14045	8.8	1.28	1.87	2.7
TOTAL	100.0	100.0	13153	14.6	2.13	2.67	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.4	51.9	14905	3.2	.51	1.10	1.5
FLOAT-1.40	74.9	82.9	14444	6.2	.71	1.31	1.8
FLOAT-1.60	84.4	91.8	14183	7.9	.89	1.48	2.1
TOTAL	100.0	100.0	13045	15.3	2.14	2.65	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.3	53.0	14998	2.6	.29	.90	1.2
FLOAT-1.40	74.0	82.5	14613	5.1	.42	1.07	1.5
FLOAT-1.60	85.1	92.5	14244	7.5	.56	1.18	1.7
TOTAL	100.0	100.0	13107	14.9	2.18	2.74	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER FREEPORT
COUNTY: INDIANA RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.9	56.9	14987	3.7	.21	.74	1.0
FLOAT-1.40	78.0	86.9	14629	6.0	.51	1.06	1.4
FLOAT-1.60	85.0	93.4	14427	7.3	.65	1.19	1.6
FLOAT-1.90	88.6	95.9	14225	8.6	.75	1.29	1.8
TOTAL	100.0	100.0	13135	15.6	1.22	1.71	2.6
EPA STANDARD	64.9	73.3	14822	4.6	.34	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.7	70.3	15003	3.6	.20	.74	1.0
FLOAT-1.40	78.4	88.0	14785	5.0	.34	.89	1.2
FLOAT-1.60	83.9	93.1	14614	6.1	.42	.97	1.3
FLOAT-1.90	87.6	95.9	14411	7.4	.49	1.03	1.4
TOTAL	100.0	100.0	13166	15.4	1.13	1.64	2.5
EPA STANDARD	78.2	87.8	14789	5.0	.34	.89	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.7	59.1	15081	3.1	.13	.67	.9
FLOAT-1.40	77.3	86.6	14785	5.0	.27	.81	1.1
FLOAT-1.60	84.4	93.4	14598	6.2	.34	.88	1.2
FLOAT-1.90	88.0	96.1	14411	7.4	.40	.93	1.3
TOTAL	100.0	100.0	13198	15.2	1.20	1.71	2.6
EPA STANDARD	84.1	93.1	14608	6.1	.34	.88	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER FREEPORT
COUNTY: INDIANA RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.5	45.2	14438	3.8	.24	.93	1.3
FLOAT-1.40	60.6	76.4	13882	7.5	.49	1.06	1.5
FLOAT-1.60	69.7	86.5	13672	8.9	.59	1.12	1.6
FLOAT-1.90	76.7	92.4	13267	11.6	.67	1.19	1.8
TOTAL	100.0	100.0	11016	26.6	1.10	1.51	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.8	49.5	14528	3.2	.21	.82	1.1
FLOAT-1.40	61.2	77.2	13987	6.8	.33	.93	1.3
FLOAT-1.60	69.0	85.6	13762	8.3	.44	1.03	1.5
FLOAT-1.90	75.6	91.5	13417	10.6	.55	1.12	1.7
TOTAL	100.0	100.0	11091	26.1	1.01	1.50	2.7
EPA STANDARD	47.8	61.5	14336	4.7	.25	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.8	46.5	14453	3.7	.19	.88	1.2
FLOAT-1.40	58.1	73.9	14138	5.8	.34	.98	1.4
FLOAT-1.60	70.7	87.8	13807	8.0	.50	1.10	1.6
FLOAT-1.90	76.3	92.7	13507	10.0	.58	1.17	1.7
TOTAL	100.0	100.0	11121	25.9	1.04	1.54	2.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: SOMERSET

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.0	10.5	14939	2.8	.19	.92	1.2
FLOAT-1.40	56.5	62.6	14192	7.7	.70	1.37	1.9
FLOAT-1.60	82.7	88.2	13658	11.2	1.46	2.06	3.0
TOTAL	100.0	100.0	12804	16.8	2.62	3.23	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.1	16.6	14923	2.9	.14	.89	1.2
FLOAT-1.40	57.9	65.0	14268	7.2	.47	1.13	1.6
FLOAT-1.60	80.9	87.3	13719	10.8	1.00	1.61	2.3
TOTAL	100.0	100.0	12713	17.4	2.69	3.34	5.3
EPA STANDARD	15.1	17.7	14911	3.0	.15	.89	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.7	16.1	14969	2.6	.18	.82	1.1
FLOAT-1.40	57.1	64.3	14390	6.4	.44	1.04	1.4
FLOAT-1.60	81.8	88.2	13780	10.4	.90	1.42	2.1
TOTAL	100.0	100.0	12774	17.0	2.67	3.30	5.2
EPA STANDARD	28.9	33.1	14796	3.8	.26	.89	1.20

STATE: PA. (BITUMINOUS)
COUNTY: TIOGA

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.0	51.4	15012	3.6	.05	.66	.9
FLOAT-1.40	83.9	87.0	14551	6.6	.23	.81	1.1
FLOAT-1.60	96.3	98.1	14290	8.3	.37	.98	1.4
TOTAL	100.0	100.0	14028	10.0	.92	1.55	2.2
EPA STANDARD	91.2	94.0	14463	7.4	.28	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.8	51.3	15012	3.6	.09	.68	.9
FLOAT-1.40	83.4	86.8	14566	6.5	.21	.76	1.0
FLOAT-1.60	95.9	97.8	14274	8.4	.36	.88	1.2
TOTAL	100.0	100.0	13998	10.2	.98	1.47	2.1
EPA STANDARD	93.7	95.9	14325	8.2	.34	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.8	55.0	15135	2.8	.07	.62	.8
FLOAT-1.40	80.9	85.6	14781	5.1	.08	.61	.8
FLOAT-1.60	93.9	96.9	14413	7.5	.17	.71	1.0
TOTAL	100.0	100.0	13967	10.4	1.07	1.60	2.3
EPA STANDARD	94.9	97.4	14339	10.0	.30	.85	1.20

STATE: PA. (BITUMINOUS)
COUNTY: WESTMORELAND

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.2	60.0	14589	3.4	.44	1.01	1.4
FLOAT-1.40	66.8	81.8	14347	5.0	.82	1.50	2.1
FLOAT-1.60	73.3	88.4	14135	6.4	1.15	1.87	2.6
FLOAT-1.90	79.4	93.0	13728	9.1	1.47	2.19	3.2
TOTAL	100.0	100.0	11719	22.4	2.96	3.60	6.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.8	69.5	14604	3.3	.32	.87	1.2
FLOAT-1.40	69.9	85.9	14407	4.6	.57	1.16	1.6
FLOAT-1.60	73.9	90.0	14271	5.5	.73	1.35	1.9
FLOAT-1.90	77.1	92.4	14045	7.0	.89	1.51	2.2
TOTAL	100.0	100.0	11719	22.4	2.85	3.53	6.0
EPA STANDARD	56.2	70.0	14600	3.3	.33	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.3	69.6	14649	3.0	.29	.84	1.1
FLOAT-1.40	68.0	82.9	14453	4.3	.44	1.00	1.4
FLOAT-1.60	75.5	90.1	14151	6.3	.68	1.24	1.8
FLOAT-1.90	79.4	93.3	13924	7.8	.82	1.38	2.0
TOTAL	100.0	100.0	11855	21.5	2.84	3.58	6.0
EPA STANDARD	59.4	73.2	14605	3.3	.32	.88	1.20

STATE: PA. (BITUMINOUS)
COUNTY: WESTMORELAND

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.6	49.2	14400	4.8	.79	1.33	1.8
FLOAT-1.40	56.5	72.1	14037	7.2	1.51	2.00	2.8
FLOAT-1.60	69.6	86.7	13704	9.4	2.28	2.78	4.1
FLOAT-1.90	74.9	92.0	13508	10.7	2.64	3.13	4.6
TOTAL	100.0	100.0	10997	27.3	4.10	4.50	8.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.1	51.1	14491	4.2	.62	1.09	1.5
FLOAT-1.40	58.6	73.7	13946	7.8	1.43	1.87	2.7
FLOAT-1.60	70.2	86.0	13583	10.2	2.05	2.50	3.7
FLOAT-1.90	75.2	90.7	13372	11.6	2.38	2.82	4.2
TOTAL	100.0	100.0	11088	26.7	4.31	4.67	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.4	53.0	14445	4.5	.41	1.14	1.6
FLOAT-1.40	60.5	77.5	14113	6.7	.74	1.48	2.1
FLOAT-1.60	68.6	86.0	13810	8.7	1.09	1.84	2.7
FLOAT-1.90	72.5	89.3	13568	10.3	1.38	2.13	3.1
TOTAL	100.0	100.0	11012	27.2	4.00	4.55	8.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: ARMSTRONG

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.4	43.1	14625	4.4	.44	1.21	1.7
FLOAT-1.40	78.2	83.5	14273	6.7	.76	1.55	2.2
FLOAT-1.60	90.5	94.6	13982	8.6	1.02	1.80	2.6
FLOAT-1.90	95.8	98.2	13707	10.4	1.18	1.96	2.9
TOTAL	100.0	100.0	13371	12.6	1.57	2.40	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.3	54.0	14671	4.1	.28	.98	1.3
FLOAT-1.40	77.9	83.8	14411	5.8	.43	1.15	1.6
FLOAT-1.60	89.3	94.2	14135	7.6	.61	1.35	1.9
FLOAT-1.90	94.7	97.7	13830	9.6	.76	1.49	2.2
TOTAL	100.0	100.0	13401	12.4	1.46	2.29	3.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.0	48.9	14870	2.8	.13	.84	1.1
FLOAT-1.40	73.3	79.8	14548	4.9	.24	.94	1.3
FLOAT-1.60	87.6	93.1	14212	7.1	.38	1.07	1.5
FLOAT-1.90	94.0	97.4	13860	9.4	.50	1.18	1.7
TOTAL	100.0	100.0	13371	12.6	1.44	2.25	3.4
EPA STANDARD	58.6	64.4	14731	3.8	.18	.88	1.20

STATE: PA. (BITUMINOUS)
COUNTY: ARMSTRONG

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.8	69.0	14465	5.2	.60	1.02	1.4
FLOAT-1.40	75.1	88.0	14190	7.0	.80	1.21	1.7
FLOAT-1.60	81.7	94.3	13976	8.4	1.03	1.43	2.0
FLOAT-1.90	85.6	97.1	13748	9.9	1.16	1.55	2.3
TOTAL	100.0	100.0	12115	20.6	1.24	1.59	2.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.3	74.5	14526	4.8	.27	.64	.9
FLOAT-1.40	76.4	88.6	14312	6.2	.37	.71	1.0
FLOAT-1.60	81.8	93.6	14129	7.4	.51	.86	1.2
FLOAT-1.90	85.5	96.2	13865	9.0	.63	.98	1.4
TOTAL	100.0	100.0	12344	19.1	1.40	1.72	2.8
EPA STANDARD	81.4	93.2	14143	7.4	.50	.85	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.4	58.3	14419	5.5	.15	.61	.8
FLOAT-1.40	72.7	84.0	14114	7.5	.23	.65	.9
FLOAT-1.60	82.9	93.8	13824	9.4	.31	.70	1.0
FLOAT-1.90	87.2	96.7	13549	11.2	.40	.78	1.2
TOTAL	100.0	100.0	12222	19.9	1.27	1.62	2.7
EPA STANDARD	88.6	97.6	13506	11.8	.43	.81	1.20

STATE: PA. (BITUMINOUS)
COUNTY: BUTLER

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.3	6.0	14328	3.1	.18	.88	1.2
FLOAT-1.40	73.5	77.8	13470	8.9	.90	1.75	2.6
FLOAT-1.60	94.5	96.8	13041	11.8	1.03	1.88	2.9
FLOAT-1.90	97.6	99.0	12908	12.7	1.12	1.99	3.1
TOTAL	100.0	100.0	12731	13.9	1.33	2.26	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	21.6	24.3	14372	2.8	.11	.81	1.1
FLOAT-1.40	70.2	75.4	13721	7.2	.40	1.16	1.7
FLOAT-1.60	91.9	95.1	13219	10.6	.66	1.45	2.2
FLOAT-1.90	96.5	98.4	13026	11.9	.79	1.58	2.4
TOTAL	100.0	100.0	12775	13.6	1.24	2.16	3.4
EPA STANDARD	29.3	32.6	14288	3.4	.15	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.0	30.4	14402	2.6	.09	.79	1.1
FLOAT-1.40	66.2	72.2	13928	5.8	.19	.89	1.3
FLOAT-1.60	88.1	92.8	13455	9.0	.35	1.05	1.6
FLOAT-1.90	94.7	97.7	13174	10.9	.48	1.19	1.8
TOTAL	100.0	100.0	12775	13.6	1.47	2.39	3.7
EPA STANDARD	51.7	56.9	14132	4.5	.15	.85	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CAMBRIA

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.8	38.0	14867	3.1	.32	.88	1.2
FLOAT-1.40	81.9	86.8	14436	5.9	.79	1.42	2.0
FLOAT-1.60	91.5	95.2	14174	7.6	1.02	1.63	2.3
TOTAL	100.0	100.0	13620	11.2	1.91	2.56	3.8
EPA STANDARD	36.1	39.4	14858	3.1	.33	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.6	56.4	14852	3.2	.16	.77	1.0
FLOAT-1.40	82.6	88.3	14528	5.3	.35	.89	1.2
FLOAT-1.60	89.9	94.7	14313	6.7	.48	1.01	1.4
TOTAL	100.0	100.0	13589	11.4	1.81	2.40	3.5
EPA STANDARD	79.8	85.5	14572	5.1	.33	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.6	56.5	14929	2.7	.21	.75	1.0
FLOAT-1.40	81.7	87.6	14621	4.7	.30	.93	1.3
FLOAT-1.60	90.4	95.3	14374	6.3	.49	1.07	1.5
TOTAL	100.0	100.0	13635	11.1	1.98	2.59	3.8
EPA STANDARD	75.7	81.6	14704	4.2	.26	.88	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CAMBRIA

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.9	49.1	14911	3.2	.18	.87	1.2
FLOAT-1.40	78.5	84.1	14589	5.3	.51	1.18	1.6
FLOAT-1.60	88.0	92.8	14359	6.8	.80	1.46	2.0
TOTAL	100.0	100.0	13623	11.6	2.14	2.83	4.2
EPA STANDARD	48.2	52.6	14888	3.4	.20	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.5	60.0	14942	3.0	.13	.82	1.1
FLOAT-1.40	80.9	87.5	14666	4.8	.28	.91	1.2
FLOAT-1.60	86.5	92.7	14528	5.7	.35	.98	1.3
TOTAL	100.0	100.0	13561	12.0	2.11	2.81	4.1
EPA STANDARD	75.6	82.0	14745	4.4	.24	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.3	51.1	15080	2.1	.08	.77	1.0
FLOAT-1.40	80.3	86.7	14743	4.3	.18	.83	1.1
FLOAT-1.60	88.5	94.4	14558	5.5	.28	.94	1.3
TOTAL	100.0	100.0	13653	11.4	2.14	2.89	4.2
EPA STANDARD	84.0	90.1	14660	5.2	.23	.88	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.4	67.1	14946	3.8	.18	.67	.9
FLOAT-1.40	89.3	91.8	14740	5.1	.33	.83	1.1
FLOAT-1.60	96.6	98.1	14566	6.2	.43	.92	1.3
TOTAL	100.0	100.0	14344	7.6	.99	1.50	2.1
EPA STANDARD	93.9	96.0	14646	5.7	.38	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.8	66.1	15104	2.8	.05	.53	.7
FLOAT-1.40	83.5	86.8	14914	4.0	.07	.57	.8
FLOAT-1.60	94.1	96.5	14709	5.3	.13	.59	.8
TOTAL	100.0	100.0	14344	7.6	1.10	1.59	2.2
EPA STANDARD	95.8	97.5	14606	5.9	.65	.82	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.6	67.8	15152	2.5	.05	.53	.7
FLOAT-1.40	85.2	88.3	14962	3.7	.07	.55	.7
FLOAT-1.60	95.1	97.4	14788	4.8	.10	.58	.8
TOTAL	100.0	100.0	14439	7.0	1.05	1.54	2.1
EPA STANDARD	96.6	98.2	14680	5.5	.37	.85	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER FREEPORT
COUNTY: CLEARFIELD RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.7	56.9	14936	3.0	.47	1.32	1.8
FLOAT-1.40	83.2	89.9	14658	4.8	1.02	1.86	2.5
FLOAT-1.60	88.6	95.1	14550	5.5	1.24	2.05	2.8
TOTAL	100.0	100.0	13560	11.9	2.34	3.10	4.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.5	61.6	14936	3.0	.42	1.25	1.7
FLOAT-1.40	82.0	89.5	14704	4.5	.81	1.63	2.2
FLOAT-1.60	87.5	94.7	14581	5.3	1.03	1.83	2.5
TOTAL	100.0	100.0	13467	12.5	2.32	3.03	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.8	60.1	15029	2.4	.24	1.29	1.7
FLOAT-1.40	79.8	87.8	14797	3.9	.47	1.45	2.0
FLOAT-1.60	86.0	93.7	14658	4.8	.74	1.67	2.3
TOTAL	100.0	100.0	13452	12.6	2.36	3.19	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER FREEPORT
COUNTY: CLEARFIELD RAW COAL MOISTURE: .4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.3	69.2	14805	4.4	.39	1.03	1.4
FLOAT-1.40	82.0	87.4	14651	5.4	.62	1.32	1.8
FLOAT-1.60	90.1	94.8	14465	6.6	.82	1.55	2.1
FLOAT-1.90	93.5	97.8	14387	7.1	.94	1.70	2.4
TOTAL	100.0	100.0	13752	11.2	1.60	2.48	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.2	68.0	14976	3.3	.19	.85	1.1
FLOAT-1.40	81.3	87.6	14759	4.7	.33	1.01	1.4
FLOAT-1.60	87.7	93.7	14620	5.6	.48	1.19	1.6
FLOAT-1.90	91.6	96.5	14418	6.9	.63	1.35	1.9
TOTAL	100.0	100.0	13690	11.6	1.65	2.57	3.8
EPA STANDARD	68.8	74.8	14916	3.7	.23	.89	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.9	54.4	14991	3.2	.14	.78	1.0
FLOAT-1.40	80.4	86.3	14759	4.7	.28	.93	1.3
FLOAT-1.60	89.1	94.4	14573	5.9	.44	1.10	1.5
FLOAT-1.90	92.8	97.2	14403	7.0	.55	1.24	1.7
TOTAL	100.0	100.0	13752	11.2	1.70	2.63	3.8
EPA STANDARD	74.2	79.8	14823	4.3	.24	.89	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.7	37.7	14901	3.1	.10	.64	.9
FLOAT-1.40	78.9	88.2	14455	6.0	.29	.83	1.1
FLOAT-1.60	86.2	95.0	14256	7.3	.34	.88	1.2
TOTAL	100.0	100.0	12935	15.9	.58	1.05	1.6
EPA STANDARD	83.6	92.7	14336	6.8	.32	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.9	49.9	14931	2.9	.10	.56	.8
FLOAT-1.40	77.1	87.3	14547	5.4	.17	.66	.9
FLOAT-1.60	84.2	94.1	14348	6.7	.23	.70	1.0
TOTAL	100.0	100.0	12843	16.5	.65	1.06	1.7
EPA STANDARD	89.4	96.0	13848	10.6	.40	.83	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.0	45.1	14978	2.6	.14	.63	.8
FLOAT-1.40	74.0	83.1	14547	5.4	.14	.67	.9
FLOAT-1.60	85.9	95.0	14317	6.9	.14	.70	1.0
TOTAL	100.0	100.0	12950	15.8	.62	1.11	1.7
EPA STANDARD	90.2	96.5	13905	11.7	.19	.82	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: LOWER FREEPORT
RAW COAL MOISTURE: .4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.0	53.2	14700	3.8	.33	1.08	1.5
FLOAT-1.40	65.8	78.0	14395	5.8	.58	1.31	1.8
FLOAT-1.60	79.0	90.8	13967	8.6	.70	1.41	2.0
FLOAT-1.90	85.0	95.5	13646	10.7	.87	1.56	2.3
TOTAL	100.0	100.0	12149	20.5	1.55	2.18	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.8	61.0	14746	3.5	.14	.82	1.1
FLOAT-1.40	65.9	79.5	14532	4.9	.25	.92	1.3
FLOAT-1.60	76.8	90.4	14181	7.2	.30	.97	1.4
FLOAT-1.90	81.6	94.4	13936	8.8	.39	1.05	1.5
TOTAL	100.0	100.0	12042	21.2	1.75	2.36	3.9
EPA STANDARD	58.9	71.9	14624	4.0	.21	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.0	43.8	14838	2.9	.10	.74	1.0
FLOAT-1.40	63.6	75.9	14548	4.8	.20	.84	1.2
FLOAT-1.60	77.6	90.0	14150	7.4	.27	.91	1.3
FLOAT-1.90	84.0	95.4	13845	9.4	.33	.96	1.4
TOTAL	100.0	100.0	12194	20.2	1.74	2.34	3.8
EPA STANDARD	69.3	82.0	14411	5.6	.23	.87	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CAMBRIA

COALBED: UPPER KITTANNING
RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.2	9.1	15039	1.7	.04	.63	.8
FLOAT-1.40	70.9	75.7	14444	5.6	.30	.80	1.1
FLOAT-1.60	88.4	92.2	14108	7.8	.77	1.32	1.9
TOTAL	100.0	100.0	13528	11.6	2.16	2.70	4.0
EPA STANDARD	85.6	91.2	14403	6.6	.38	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.4	17.2	15039	1.7	.04	.61	.8
FLOAT-1.40	73.9	79.8	14535	5.0	.17	.65	.9
FLOAT-1.60	86.7	91.8	14261	6.8	.35	.83	1.2
TOTAL	100.0	100.0	13467	12.0	2.28	2.80	4.2
EPA STANDARD	88.3	93.3	14251	7.0	.37	.85	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.0	12.2	15039	1.7	.03	.49	.7
FLOAT-1.40	71.3	77.2	14657	4.2	.13	.55	.8
FLOAT-1.60	88.0	93.4	14368	6.1	.21	.70	1.0
TOTAL	100.0	100.0	13544	11.5	2.22	2.74	4.0
EPA STANDARD	88.9	93.8	14307	7.8	.30	.85	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CAMBRIA

COALBED: UPPER KITTANNING
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.8	17.5	14616	2.8	.07	.61	.8
FLOAT-1.40	48.1	69.1	14180	5.7	.12	.64	.9
FLOAT-1.60	60.5	84.0	13699	8.9	.22	.73	1.1
FLOAT-1.90	64.6	88.0	13443	10.6	.30	.80	1.2
TOTAL	100.0	100.0	9864	34.4	.80	1.18	2.4
EPA STANDARD	64.9	88.3	13414	10.7	.31	.81	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.1	22.9	14691	2.3	.04	.60	.8
FLOAT-1.40	49.3	72.6	14255	5.2	.09	.62	.9
FLOAT-1.60	58.1	83.4	13909	7.5	.13	.65	.9
FLOAT-1.90	62.1	87.7	13669	9.1	.17	.68	1.0
TOTAL	100.0	100.0	9684	35.6	.78	1.16	2.4
EPA STANDARD	74.2	99.7	13085	14.3	.30	.78	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.0	10.3	14736	2.0	.04	.60	.8
FLOAT-1.40	46.6	66.3	14180	5.7	.09	.62	.9
FLOAT-1.60	59.3	82.1	13804	8.2	.15	.66	1.0
FLOAT-1.90	67.1	90.0	13368	11.1	.20	.69	1.0
TOTAL	100.0	100.0	9970	33.7	.78	1.18	2.4
EPA STANDARD	82.0	91.2	12941	16.9	.30	.76	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER KITTANNING
COUNTY: CLEARFIELD RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.2	46.6	14925	2.9	.05	.68	.9
FLOAT-1.40	73.7	80.3	14388	6.4	.05	.66	.9
FLOAT-1.60	89.9	94.8	13928	9.4	.07	.65	.9
TOTAL	100.0	100.0	13207	14.1	.12	.69	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.0	51.0	14940	2.8	.05	.67	.9
FLOAT-1.40	72.1	79.3	14495	5.7	.05	.64	.9
FLOAT-1.60	88.4	94.0	14005	8.9	.06	.63	.9
TOTAL	100.0	100.0	13177	14.3	.12	.68	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.2	51.3	15032	2.2	.03	.68	.9
FLOAT-1.40	68.5	75.6	14633	4.8	.04	.69	.9
FLOAT-1.60	88.2	93.7	14081	8.4	.05	.70	1.0
TOTAL	100.0	100.0	13253	13.8	.12	.75	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER KITTANNING
COUNTY: CLEARFIELD RAW COAL MOISTURE: 3.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.1	9.8	14482	2.8	.03	.50	.7
FLOAT-1.40	79.3	82.2	13967	6.1	.06	.48	.7
FLOAT-1.60	95.7	97.5	13718	7.7	.06	.49	.7
TOTAL	100.0	100.0	13468	9.3	.46	.89	1.3
EPA STANDARD	99.1	99.5	13518	9.0	.32	.78	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.8	12.7	14498	2.7	.03	.46	.6
FLOAT-1.40	76.7	79.9	14030	5.7	.02	.44	.6
FLOAT-1.60	95.4	97.3	13733	7.6	.04	.45	.7
TOTAL	100.0	100.0	13468	9.3	.45	.85	1.3
EPA STANDARD	99.5	99.7	13495	9.1	.41	.79	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.0	24.6	14420	3.2	.03	.45	.6
FLOAT-1.40	71.0	75.0	14232	4.4	.02	.43	.6
FLOAT-1.60	92.1	95.4	13952	6.2	.03	.44	.6
TOTAL	100.0	100.0	13468	9.3	.48	.88	1.3
EPA STANDARD	98.8	99.3	13544	8.8	.39	.79	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER KITTANNING
COUNTY: SOMERSET RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.0	15.0	15115	1.8	.07	.83	1.1
FLOAT-1.40	69.8	77.7	14545	5.5	.22	.97	1.3
FLOAT-1.60	84.3	91.3	14145	8.1	.31	1.04	1.5
TOTAL	100.0	100.0	13068	15.1	1.19	1.88	2.9
EPA STANDARD	42.5	48.2	14869	3.3	.13	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.3	31.4	15084	2.0	.09	.99	1.3
FLOAT-1.40	72.2	80.7	14668	4.7	.20	.95	1.3
FLOAT-1.60	84.2	91.7	14299	7.1	.26	.97	1.4
TOTAL	100.0	100.0	13129	14.7	1.16	1.82	2.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.7	22.7	15099	1.9	.07	1.01	1.3
FLOAT-1.40	69.5	77.6	14653	4.8	.17	.96	1.3
FLOAT-1.60	85.3	92.4	14222	7.6	.27	1.00	1.4
TOTAL	100.0	100.0	13129	14.7	1.13	1.78	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: UPPER KITTANNING
COUNTY: SOMERSET RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.2	30.2	14940	3.0	.15	.58	.8
FLOAT-1.40	73.0	81.3	14432	6.3	.37	.80	1.1
FLOAT-1.60	85.4	93.2	14139	8.2	.59	1.03	1.5
FLOAT-1.90	88.5	95.7	14000	9.1	.75	1.20	1.7
TOTAL	100.0	100.0	12953	15.9	2.05	2.53	3.9
EPA STANDARD	79.9	88.6	14355	7.0	.43	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.9	43.9	14971	2.8	.09	.58	.8
FLOAT-1.40	73.6	83.0	14586	5.3	.16	.63	.9
FLOAT-1.60	84.0	92.9	14308	7.1	.25	.72	1.0
FLOAT-1.90	87.0	95.3	14170	8.0	.35	.82	1.2
TOTAL	100.0	100.0	12938	16.0	2.07	2.58	4.0
EPA STANDARD	87.8	95.9	14151	8.2	.38	.85	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.2	43.9	14986	2.7	.09	.54	.7
FLOAT-1.40	71.8	80.7	14647	4.9	.12	.57	.8
FLOAT-1.60	84.6	93.2	14355	6.8	.18	.62	.9
FLOAT-1.90	87.4	95.4	14216	7.7	.23	.67	.9
TOTAL	100.0	100.0	13030	15.4	2.10	2.65	4.1
EPA STANDARD	95.7	95.7	14118	10.4	.39	.83	1.20

STATE: PA. (BITUMINOUS)
COUNTY: TIOGA

COALBED: UPPER KITTANNING
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.1	47.4	14981	2.6	.50	1.42	1.9
FLOAT-1.40	59.7	73.0	14734	4.2	.86	1.91	2.6
FLOAT-1.60	74.5	87.9	14226	7.5	1.33	2.39	3.4
TOTAL	100.0	100.0	12053	21.6	3.07	3.96	6.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.0	50.0	14996	2.5	.29	1.40	1.9
FLOAT-1.40	62.5	76.8	14749	4.1	.71	1.85	2.5
FLOAT-1.60	74.3	89.0	14380	6.5	.98	2.08	2.9
TOTAL	100.0	100.0	12007	21.9	2.92	3.85	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.6	41.8	15058	2.1	.22	1.25	1.7
FLOAT-1.40	58.4	71.6	14842	3.5	.47	1.55	2.1
FLOAT-1.60	73.5	87.6	14426	6.2	.80	1.82	2.5
TOTAL	100.0	100.0	12099	21.3	3.07	3.94	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: TIOGA

COALBED: UPPER KITTANNING
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.3	32.9	14892	3.0	.15	1.00	1.3
FLOAT-1.40	69.9	76.4	14479	5.7	.66	1.33	1.8
FLOAT-1.60	82.2	88.1	14204	7.5	1.16	1.82	2.6
TOTAL	100.0	100.0	13256	13.7	3.36	3.99	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.5	37.8	14923	2.8	.18	.66	.9
FLOAT-1.40	70.4	77.3	14541	5.3	.62	1.05	1.4
FLOAT-1.60	82.2	88.7	14281	7.0	1.03	1.50	2.1
TOTAL	100.0	100.0	13240	13.8	3.49	4.00	6.0
EPA STANDARD	57.3	63.4	14707	4.3	.44	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.8	36.9	14954	2.6	.26	.75	1.0
FLOAT-1.40	67.8	74.7	14632	4.7	.50	.99	1.4
FLOAT-1.60	87.5	93.0	14128	8.0	1.41	1.89	2.7
TOTAL	100.0	100.0	13286	13.5	3.37	3.88	5.8
EPA STANDARD	54.0	59.8	14773	3.8	.39	.89	1.20

STATE: PA. (BITUMINOUS) COALBED: MIDDLE KITTANNING
COUNTY: CLARION RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.9	75.8	13863	4.0	.09	.82	1.2
FLOAT-1.40	89.1	91.8	13733	4.9	.10	.80	1.2
FLOAT-1.60	98.1	99.3	13487	6.6	.11	.79	1.2
FLOAT-1.90	99.1	100.0	13444	6.9	.11	.79	1.2
TOTAL	100.0	100.0	13329	7.7	.12	.80	1.2
EPA STANDARD	100.0	100.0	13331	7.7	.12	.80	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.3	71.9	14036	2.8	.09	.71	1.0
FLOAT-1.40	86.2	89.8	13892	3.8	.09	.70	1.0
FLOAT-1.60	97.0	98.9	13588	5.9	.10	.69	1.0
FLOAT-1.90	98.6	99.9	13502	6.5	.10	.69	1.0
TOTAL	100.0	100.0	13329	7.7	.12	.71	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.4	37.7	14151	2.0	.05	.71	1.0
FLOAT-1.40	83.3	87.2	13892	3.8	.06	.68	1.0
FLOAT-1.60	95.3	97.9	13632	5.6	.06	.67	1.0
FLOAT-1.90	97.9	99.7	13516	6.4	.07	.66	1.0
TOTAL	100.0	100.0	13271	8.1	.11	.70	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: PA. (BITUMINOUS) COALBED: MIDDLE KITTANNING
COUNTY: CLEARFIELD RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.9	50.8	14716	4.0	.31	1.03	1.4
FLOAT-1.40	66.6	73.5	14361	6.3	.43	1.11	1.5
FLOAT-1.60	87.2	91.5	13665	10.8	.60	1.22	1.8
TOTAL	100.0	100.0	13016	15.0	1.85	2.41	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.4	54.8	14825	3.3	.26	.93	1.3
FLOAT-1.40	68.3	75.6	14500	5.4	.36	1.02	1.4
FLOAT-1.60	86.0	91.3	13897	9.3	.51	1.12	1.6
TOTAL	100.0	100.0	13094	14.5	1.78	2.33	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.8	45.1	14902	2.8	.20	1.03	1.4
FLOAT-1.40	64.1	71.0	14562	5.0	.28	1.05	1.4
FLOAT-1.60	85.4	90.9	14005	8.6	.56	1.25	1.8
TOTAL	100.0	100.0	13155	14.1	1.82	2.44	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.1	52.6	14943	3.3	.24	1.15	1.5
FLOAT-1.40	82.0	87.5	14591	5.6	.43	1.30	1.8
FLOAT-1.60	88.8	93.7	14422	6.7	.59	1.43	2.0
TOTAL	100.0	100.0	13671	11.6	2.11	2.90	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.2	56.9	14974	3.1	.18	1.22	1.6
FLOAT-1.40	82.5	87.9	14652	5.2	.36	1.37	1.9
FLOAT-1.60	89.1	93.9	14483	6.3	.48	1.47	2.0
TOTAL	100.0	100.0	13748	11.1	1.98	2.88	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.2	50.7	15066	2.5	.10	1.12	1.5
FLOAT-1.40	80.0	86.0	14759	4.5	.27	1.18	1.6
FLOAT-1.60	89.3	94.4	14514	6.1	.44	1.31	1.8
TOTAL	100.0	100.0	13733	11.2	2.16	2.97	4.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.7	52.1	14880	3.0	.07	.88	1.2
FLOAT-1.40	88.3	90.7	14565	5.0	.19	1.00	1.4
FLOAT-1.60	97.0	98.1	14345	6.4	.30	1.10	1.5
TOTAL	100.0	100.0	14187	7.4	.63	1.42	2.0
EPA STANDARD	54.4	56.9	14852	3.2	.08	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.2	56.0	14943	2.6	.09	.93	1.2
FLOAT-1.40	87.6	90.3	14628	4.6	.18	.97	1.3
FLOAT-1.60	96.8	98.2	14392	6.1	.26	1.04	1.4
TOTAL	100.0	100.0	14187	7.4	.67	1.44	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.4	52.3	15037	2.0	.09	.93	1.2
FLOAT-1.40	81.6	84.7	14738	3.9	.14	.94	1.3
FLOAT-1.60	96.3	97.8	14423	5.9	.25	1.07	1.5
TOTAL	100.0	100.0	14203	7.3	.65	1.44	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.7	35.3	14861	3.6	.38	1.27	1.7
FLOAT-1.40	80.4	84.0	14388	6.6	1.08	1.89	2.6
FLOAT-1.60	93.0	95.3	14120	8.3	1.43	2.21	3.1
TOTAL	100.0	100.0	13774	10.5	2.21	3.02	4.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.5	44.8	14908	3.3	.38	1.21	1.6
FLOAT-1.40	82.6	86.7	14483	6.0	.81	1.64	2.3
FLOAT-1.60	92.3	95.4	14262	7.4	1.10	1.84	2.6
TOTAL	100.0	100.0	13805	10.3	2.33	3.11	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.2	45.6	14971	2.9	.35	1.11	1.5
FLOAT-1.40	79.0	83.3	14624	5.1	.60	1.67	2.3
FLOAT-1.60	91.9	95.0	14341	6.9	.92	1.85	2.6
TOTAL	100.0	100.0	13868	9.9	2.18	3.12	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: .4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	6.9	8.6	14307	4.8	1.18	2.37	3.3
FLOAT-1.40	36.5	43.1	13585	9.6	2.62	4.15	6.1
FLOAT-1.60	69.8	78.9	12999	13.5	4.18	6.08	9.4
FLOAT-1.90	80.9	89.3	12684	15.6	5.24	7.40	11.7
TOTAL	100.0	100.0	11496	23.5	6.95	9.39	16.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.5	15.6	14382	4.3	.98	2.27	3.2
FLOAT-1.40	44.8	53.3	13736	8.6	2.19	3.81	5.5
FLOAT-1.60	70.6	81.0	13240	11.9	3.36	5.19	7.8
FLOAT-1.90	79.4	89.1	12954	13.8	4.17	6.17	9.5
TOTAL	100.0	100.0	11541	23.2	6.66	9.12	15.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.6	10.8	14382	4.3	.95	2.19	3.0
FLOAT-1.40	39.6	47.7	13856	7.8	1.92	3.54	5.1
FLOAT-1.60	68.7	79.7	13330	11.3	2.96	4.78	7.2
FLOAT-1.90	78.7	89.1	13014	13.4	3.71	5.70	8.8
TOTAL	100.0	100.0	11496	23.5	6.73	9.21	16.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: TIOGA

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.8	5.5	14859	2.9	.28	.74	1.0
FLOAT-1.40	65.3	70.9	14115	7.8	1.05	1.49	2.1
FLOAT-1.60	88.2	93.0	13720	10.4	1.53	2.02	2.9
TOTAL	100.0	100.0	13007	15.1	2.35	2.82	4.3
EPA STANDARD	18.4	20.5	14723	3.9	.43	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.0	9.1	14889	2.7	.22	.71	1.0
FLOAT-1.40	67.4	73.2	14145	7.6	.83	1.32	1.9
FLOAT-1.60	87.1	92.6	13842	9.6	1.31	1.75	2.5
TOTAL	100.0	100.0	13022	15.0	2.48	2.97	4.6
EPA STANDARD	27.7	30.7	14688	4.3	.38	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.4	19.8	14783	3.4	.27	1.25	1.7
FLOAT-1.40	64.1	70.8	14312	6.5	.56	1.37	1.9
FLOAT-1.60	85.5	92.4	14009	8.5	.80	1.42	2.0
TOTAL	100.0	100.0	12961	15.4	2.45	3.04	4.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: TIOGA

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: .6 %

BENCH: FIRST

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.4	19.0	14831	3.0	.03	.72	1.0
FLOAT-1.40	48.3	57.5	14267	6.7	.23	.84	1.2
FLOAT-1.60	72.6	81.7	13504	11.7	.69	1.22	1.8
TOTAL	100.0	100.0	11994	21.6	1.63	2.05	3.4
EPA STANDARD	51.1	60.7	14239	7.0	.25	.85	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.7	24.2	14800	3.2	.04	.67	.9
FLOAT-1.40	56.4	67.0	14297	6.5	.11	.72	1.0
FLOAT-1.60	72.5	83.1	13794	9.8	.20	.78	1.1
TOTAL	100.0	100.0	12040	21.3	1.64	2.11	3.5
EPA STANDARD	80.9	91.4	13743	11.5	.25	.81	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.5	20.3	14846	2.9	.04	.62	.8
FLOAT-1.40	50.4	60.1	14404	5.8	.09	.66	.9
FLOAT-1.60	75.8	86.9	13855	9.4	.20	.71	1.0
TOTAL	100.0	100.0	12086	21.0	1.68	2.16	3.6
EPA STANDARD	77.5	87.8	13733	14.7	.37	.79	1.20

STATE: PA. (BITUMINOUS)
COUNTY: TIOGA

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: .6 %
CUMULATIVE WASHABILITY DATA

BENCH: SECOND

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.9	34.6	15051	3.2	.10	.75	1.0
FLOAT-1.40	91.6	93.9	14679	5.6	.24	.90	1.2
FLOAT-1.60	96.4	98.2	14586	6.2	.33	.98	1.3
TOTAL	100.0	100.0	14322	7.9	.62	1.26	1.8
EPA STANDARD	88.2	90.5	14721	5.4	.22	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.7	44.1	15097	2.9	.05	.70	.9
FLOAT-1.40	88.9	92.2	14803	4.8	.11	.70	.9
FLOAT-1.60	95.1	97.8	14679	5.6	.21	.79	1.1
TOTAL	100.0	100.0	14276	8.2	.70	1.27	1.8
EPA STANDARD	99.4	98.2	14608	6.3	.30	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.5	41.0	15175	2.4	.05	.68	.9
FLOAT-1.40	84.7	88.4	14865	4.4	.11	.68	.9
FLOAT-1.60	94.4	97.4	14694	5.5	.14	.71	1.0
TOTAL	100.0	100.0	14245	8.4	.68	1.24	1.7
EPA STANDARD	96.1	98.2	14559	6.4	.29	.85	1.20

STATE: PA. (BITUMINOUS)
COUNTY: TIOGA

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: .8 %
CUMULATIVE WASHABILITY DATA

BENCH: FOURTH

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.7	6.2	15027	2.5	.27	.90	1.2
FLOAT-1.40	81.5	84.2	14190	8.0	.62	1.34	1.9
FLOAT-1.60	96.6	98.0	13931	9.7	.66	1.35	1.9
TOTAL	100.0	100.0	13733	11.0	.88	1.57	2.3
EPA STANDARD	5.9	6.5	15024	2.5	.27	.90	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.0	19.7	15057	2.3	.17	.94	1.2
FLOAT-1.40	76.9	80.2	14357	6.9	.45	1.19	1.7
FLOAT-1.60	95.4	97.2	14022	9.1	.57	1.27	1.8
TOTAL	100.0	100.0	13764	10.8	.90	1.60	2.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.9	20.7	15088	2.1	.19	.92	1.2
FLOAT-1.40	74.3	78.0	14464	6.2	.33	1.03	1.4
FLOAT-1.60	93.9	96.1	14098	8.6	.47	1.14	1.6
TOTAL	100.0	100.0	13779	10.7	.93	1.60	2.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: ARMSTRONG RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.2	54.2	14527	4.1	.23	.88	1.2
FLOAT-1.40	74.4	82.2	14283	5.7	.64	1.25	1.8
FLOAT-1.60	83.0	90.2	14039	7.3	.86	1.44	2.1
TOTAL	100.0	100.0	12925	14.6	1.97	2.51	3.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.4	68.1	14604	3.6	.11	.81	1.1
FLOAT-1.40	75.3	83.7	14405	4.9	.29	.97	1.3
FLOAT-1.60	82.5	90.2	14161	6.5	.48	1.15	1.6
TOTAL	100.0	100.0	12955	14.4	1.86	2.49	3.8
EPA STANDARD	67.0	75.2	14528	4.1	.18	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.7	58.9	14772	2.5	.11	.77	1.0
FLOAT-1.40	73.7	82.5	14497	4.3	.12	.81	1.1
FLOAT-1.60	83.3	90.6	14085	7.0	.41	1.08	1.5
TOTAL	100.0	100.0	12955	14.4	2.01	2.57	4.0
EPA STANDARD	75.6	84.1	14415	5.8	.15	.86	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: ARMSTRONG RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.5	64.5	14600	4.0	.64	2.01	2.8
FLOAT-1.40	86.0	90.0	14327	5.8	1.07	2.40	3.4
FLOAT-1.60	91.2	94.7	14221	6.5	1.37	2.70	3.8
TOTAL	100.0	100.0	13689	10.0	3.14	4.45	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.3	70.5	14722	3.2	.38	1.77	2.4
FLOAT-1.40	85.0	90.2	14464	4.9	.74	2.07	2.9
FLOAT-1.60	90.0	94.7	14342	5.7	1.01	2.33	3.2
TOTAL	100.0	100.0	13628	10.4	3.39	4.62	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.5	64.7	14798	2.7	.29	1.73	2.3
FLOAT-1.40	83.8	89.7	14570	4.2	.53	1.86	2.6
FLOAT-1.60	89.3	94.2	14357	5.6	.86	2.19	3.1
TOTAL	100.0	100.0	13613	10.5	3.34	4.54	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: ARMSTRONG RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.8	41.0	14443	4.4	.85	1.88	2.6
FLOAT-1.40	73.3	81.6	14035	7.1	1.64	2.89	4.1
FLOAT-1.60	84.1	92.3	13839	8.4	2.07	3.42	4.9
FLOAT-1.90	88.3	95.6	13658	9.6	2.38	3.79	5.6
TOTAL	100.0	100.0	12615	16.5	3.50	5.09	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.5	51.3	14549	3.7	.73	1.75	2.4
FLOAT-1.40	71.7	81.0	14262	5.6	1.33	2.49	3.5
FLOAT-1.60	82.0	91.1	14035	7.1	1.69	2.93	4.2
FLOAT-1.90	86.7	95.1	13854	8.3	2.00	3.32	4.8
TOTAL	100.0	100.0	12630	16.4	3.55	5.11	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.6	56.0	14564	3.6	.55	1.54	2.1
FLOAT-1.40	71.8	81.4	14322	5.2	.96	2.07	2.9
FLOAT-1.60	80.9	90.3	14096	6.7	1.29	2.47	3.5
FLOAT-1.90	85.7	94.4	13914	7.9	1.59	2.82	4.1
TOTAL	100.0	100.0	12630	16.4	3.60	5.26	8.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: ARMSTRONG RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.5	51.8	14324	4.3	.58	1.44	2.0
FLOAT-1.40	60.6	74.3	14055	6.1	.85	1.77	2.5
FLOAT-1.60	68.6	82.3	13756	8.1	.99	1.88	2.7
FLOAT-1.90	83.8	93.4	12783	14.6	1.21	2.14	3.3
TOTAL	100.0	100.0	11466	23.4	2.82	3.90	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.3	58.1	14399	3.8	.33	1.17	1.6
FLOAT-1.40	60.3	74.6	14205	5.1	.52	1.39	2.0
FLOAT-1.60	68.5	82.9	13890	7.2	.68	1.51	2.2
FLOAT-1.90	81.8	92.7	13007	13.1	.89	1.74	2.7
TOTAL	100.0	100.0	11481	23.3	2.79	3.88	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.9	60.5	14459	3.4	.31	1.05	1.5
FLOAT-1.40	59.1	73.8	14294	4.5	.43	1.19	1.7
FLOAT-1.60	70.3	85.1	13860	7.4	.65	1.36	2.0
FLOAT-1.90	81.0	93.1	13157	12.1	.80	1.52	2.3
TOTAL	100.0	100.0	11451	23.5	2.92	4.05	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: BEDFORD

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.6	38.3	15312	1.6	.04	.76	1.0
FLOAT-1.40	71.4	79.5	14967	3.8	.10	.83	1.1
FLOAT-1.60	84.9	91.7	14528	6.6	.32	1.03	1.4
TOTAL	100.0	100.0	13446	13.5	1.39	2.06	3.1
EPA STANDARD	75.4	83.1	14838	5.1	.16	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.6	43.9	15296	1.7	.06	.74	1.0
FLOAT-1.40	74.7	83.1	14983	3.7	.10	.77	1.0
FLOAT-1.60	84.9	92.1	14606	6.1	.26	.91	1.2
TOTAL	100.0	100.0	13461	13.4	1.45	2.10	3.1
EPA STANDARD	82.7	90.2	14686	5.6	.22	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.5	45.0	15359	1.3	.04	.76	1.0
FLOAT-1.40	76.9	85.7	15030	3.4	.09	.80	1.1
FLOAT-1.60	85.4	93.6	14794	4.9	.21	.89	1.2
TOTAL	100.0	100.0	13493	13.2	1.45	2.10	3.1
EPA STANDARD	85.2	93.5	14800	4.9	.21	.89	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CAMBRIA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.0	64.4	15073	3.3	.15	.90	1.2
FLOAT-1.40	85.6	89.0	14858	4.7	.32	1.05	1.4
FLOAT-1.60	94.1	96.2	14611	6.3	.49	1.18	1.6
TOTAL	100.0	100.0	14288	8.4	1.31	2.01	2.8
EPA STANDARD	61.9	65.2	15068	3.3	.15	.90	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.3	69.1	15227	2.3	.20	.81	1.1
FLOAT-1.40	87.1	90.7	14996	3.8	.29	.88	1.2
FLOAT-1.60	93.3	96.0	14811	5.0	.39	.97	1.3
TOTAL	100.0	100.0	14396	7.7	1.19	1.81	2.5
EPA STANDARD	90.1	93.6	14960	4.1	.31	.90	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.2	63.4	15274	2.0	.09	.83	1.1
FLOAT-1.40	85.3	89.7	15012	3.7	.24	.85	1.1
FLOAT-1.60	92.6	96.1	14811	5.0	.35	.94	1.3
TOTAL	100.0	100.0	14272	8.5	1.29	1.90	2.7
EPA STANDARD	88.9	92.9	14913	4.3	.36	.89	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CAMBRIA
COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.4	43.0	14988	3.1	.06	.65	.9
FLOAT-1.40	72.7	79.4	14602	5.6	.09	.67	.9
FLOAT-1.60	87.3	91.9	14078	9.0	.10	.67	1.0
TOTAL	100.0	100.0	13369	13.6	.15	.68	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.5	50.4	15096	2.4	.03	.65	.9
FLOAT-1.40	71.7	79.3	14756	4.6	.04	.65	.9
FLOAT-1.60	85.1	91.0	14263	7.8	.05	.64	.9
TOTAL	100.0	100.0	13338	13.8	.14	.71	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.0	49.5	15157	2.0	.03	.63	.8
FLOAT-1.40	74.1	81.7	14834	4.1	.04	.62	.8
FLOAT-1.60	87.5	93.5	14387	7.0	.04	.63	.9
TOTAL	100.0	100.0	13462	13.0	.15	.70	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: PA. (BITUMINOUS)
COUNTY: CAMBRIA
COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.5	49.3	14817	3.9	.11	.65	.9
FLOAT-1.40	56.1	70.1	14477	6.1	.20	.69	1.0
FLOAT-1.60	73.4	87.1	13737	10.9	.29	.77	1.1
FLOAT-1.90	85.5	96.1	13013	15.6	.36	.82	1.3
TOTAL	100.0	100.0	11579	24.9	.80	1.26	2.2
EPA STANDARD	80.5	92.8	13326	13.5	.33	.80	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.5	56.2	14909	3.3	.08	.60	.8
FLOAT-1.40	58.0	73.6	14632	5.1	.13	.63	.9
FLOAT-1.60	71.2	86.7	14046	8.9	.18	.66	.9
FLOAT-1.90	82.4	95.2	13321	13.6	.22	.69	1.0
TOTAL	100.0	100.0	11532	25.2	.77	1.24	2.2
EPA STANDARD	98.0	95.9	13058	20.3	.29	.75	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.8	44.9	14971	2.9	.06	.59	.8
FLOAT-1.40	57.2	72.3	14678	4.8	.10	.64	.9
FLOAT-1.60	70.3	86.0	14200	7.9	.14	.66	.9
FLOAT-1.90	80.7	94.0	13521	12.3	.17	.67	1.0
TOTAL	100.0	100.0	11609	24.7	.71	1.21	2.1
EPA STANDARD	84.4	95.1	13156	24.3	.27	.72	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CAMBRIA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.3	62.8	15101	3.0	.10	.76	1.0
FLOAT-1.40	77.4	85.0	14867	4.5	.15	.80	1.1
FLOAT-1.60	86.1	92.5	14556	6.5	.21	.85	1.2
FLOAT-1.90	94.4	97.8	14026	9.9	.27	.91	1.3
TOTAL	100.0	100.0	13544	13.0	.89	1.60	2.4
EPA STANDARD	88.6	94.4	14425	7.3	.23	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.7	65.8	15179	2.5	.06	.71	.9
FLOAT-1.40	77.8	85.9	14961	3.9	.10	.73	1.0
FLOAT-1.60	85.1	92.3	14696	5.6	.14	.75	1.0
FLOAT-1.90	92.2	97.0	14244	8.5	.19	.79	1.1
TOTAL	100.0	100.0	13544	13.0	.85	1.53	2.3
EPA STANDARD	98.5	97.2	14189	11.1	.24	.83	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.5	48.8	15241	2.1	.06	.67	.9
FLOAT-1.40	74.2	82.0	15007	3.6	.09	.70	.9
FLOAT-1.60	86.0	92.9	14665	5.8	.15	.72	1.0
FLOAT-1.90	91.7	96.7	14322	8.0	.18	.75	1.0
TOTAL	100.0	100.0	13575	12.8	.85	1.50	2.2
EPA STANDARD	92.8	97.2	14224	12.3	.25	.83	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CENTRE

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.7	20.5	14726	3.6	.13	.85	1.2
FLOAT-1.40	47.5	55.5	14026	8.2	.21	.88	1.3
FLOAT-1.60	80.5	87.0	12977	15.1	.33	.95	1.5
TOTAL	100.0	100.0	12004	21.5	.61	1.18	2.0
EPA STANDARD	31.9	38.0	14408	5.8	.17	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	21.2	26.8	14802	3.1	.05	.86	1.2
FLOAT-1.40	48.1	58.1	14163	7.3	.17	.88	1.2
FLOAT-1.60	74.1	83.4	13205	13.6	.26	.90	1.4
TOTAL	100.0	100.0	11730	23.3	.55	1.10	1.9
EPA STANDARD	34.8	42.9	14501	5.1	.11	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.1	25.2	14893	2.5	.13	.85	1.1
FLOAT-1.40	50.4	60.4	14270	6.6	.15	.87	1.2
FLOAT-1.60	74.4	84.4	13494	11.7	.22	.88	1.3
TOTAL	100.0	100.0	11898	22.2	.59	1.14	1.9
EPA STANDARD	43.6	52.9	14425	5.5	.14	.87	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLARION

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 2.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.7	56.1	14280	3.6	.34	1.29	1.8
FLOAT-1.40	84.2	88.1	14028	5.3	.88	1.85	2.6
FLOAT-1.60	92.0	95.0	13851	6.5	1.22	2.24	3.2
TOTAL	100.0	100.0	13407	9.5	2.47	3.65	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.5	57.6	14339	3.2	.35	1.25	1.7
FLOAT-1.40	80.7	85.4	14088	4.9	.75	1.69	2.4
FLOAT-1.60	90.6	94.3	13866	6.4	1.17	2.11	3.0
TOTAL	100.0	100.0	13318	10.1	2.66	3.75	5.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.2	62.1	14472	2.3	.30	1.20	1.7
FLOAT-1.40	80.9	86.2	14206	4.1	.52	1.44	2.0
FLOAT-1.60	90.8	94.9	13940	5.9	.95	1.95	2.8
TOTAL	100.0	100.0	13333	10.0	2.54	3.66	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLARION

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.5	64.2	14249	5.1	.91	1.78	2.5
FLOAT-1.40	86.8	91.8	13964	7.0	1.63	2.42	3.5
FLOAT-1.60	92.7	96.6	13754	8.4	1.77	2.55	3.7
FLOAT-1.90	94.4	97.7	13664	9.0	1.87	2.63	3.8
TOTAL	100.0	100.0	13198	12.1	2.72	3.46	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.4	62.6	14324	4.6	.89	1.46	2.0
FLOAT-1.40	85.0	89.0	13754	8.4	1.55	2.14	3.1
FLOAT-1.60	91.9	95.2	13604	9.4	1.69	2.27	3.3
FLOAT-1.90	94.2	97.2	13559	9.7	1.76	2.34	3.5
TOTAL	100.0	100.0	13138	12.5	2.71	3.27	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.3	46.5	14474	3.6	.50	1.26	1.7
FLOAT-1.40	77.2	83.2	14189	5.5	.92	1.66	2.3
FLOAT-1.60	89.5	94.5	13904	7.4	1.21	1.90	2.7
FLOAT-1.90	93.6	97.3	13694	8.8	1.32	2.00	2.9
TOTAL	100.0	100.0	13168	12.3	2.62	3.28	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.9	46.5	14701	3.8	.36	1.42	1.9
FLOAT-1.40	77.0	81.4	14351	6.1	.91	2.04	2.8
FLOAT-1.60	90.5	93.8	14078	7.9	1.47	2.63	3.7
TOTAL	100.0	100.0	13576	11.2	3.15	4.30	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.8	54.4	14777	3.3	.27	1.32	1.8
FLOAT-1.40	77.5	82.9	14458	5.4	.67	1.76	2.4
FLOAT-1.60	89.1	93.6	14199	7.1	1.11	2.19	3.1
TOTAL	100.0	100.0	13515	11.6	3.37	4.40	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.5	51.3	14853	2.8	.26	1.12	1.5
FLOAT-1.40	75.2	81.4	14564	4.7	.49	1.44	2.0
FLOAT-1.60	87.2	92.7	14306	6.4	.86	1.79	2.5
TOTAL	100.0	100.0	13455	12.0	3.45	4.39	6.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLEARFIELD

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.3	46.1	14658	3.9	.50	1.66	2.3
FLOAT-1.40	68.6	75.0	14352	5.9	1.09	2.25	3.1
FLOAT-1.60	84.1	89.4	13955	8.5	1.84	2.99	4.3
TOTAL	100.0	100.0	13129	13.9	5.01	6.15	9.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.4	53.3	14674	3.8	.40	1.51	2.1
FLOAT-1.40	70.7	78.0	14398	5.6	.83	1.93	2.7
FLOAT-1.60	83.2	89.6	14062	7.8	1.41	2.49	3.5
TOTAL	100.0	100.0	13052	14.4	5.27	6.30	9.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.6	30.1	14781	3.1	.33	1.51	2.0
FLOAT-1.40	65.9	73.1	14521	4.8	.64	1.67	2.3
FLOAT-1.60	81.1	87.8	14169	7.1	1.20	2.36	3.3
TOTAL	100.0	100.0	13083	14.2	5.20	6.31	9.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING BENCH: TOP
COUNTY: CLEARFIELD RAW COAL MOISTURE: .6 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.3	38.1	14787	3.6	.84	1.56	2.1
FLOAT-1.40	73.5	79.4	14392	6.2	1.90	2.47	3.4
FLOAT-1.60	86.9	91.9	14088	8.2	2.31	2.89	4.1
TOTAL	100.0	100.0	13328	13.2	4.67	5.23	7.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.7	47.4	14817	3.4	.80	1.56	2.1
FLOAT-1.40	75.5	81.9	14483	5.6	1.50	2.25	3.1
FLOAT-1.60	86.1	91.7	14225	7.3	1.86	2.57	3.6
TOTAL	100.0	100.0	13358	13.0	4.44	5.08	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.1	46.9	14893	2.9	.53	1.25	1.7
FLOAT-1.40	72.4	79.3	14650	4.5	.89	1.60	2.2
FLOAT-1.60	85.1	91.4	14361	6.4	1.29	2.05	2.9
TOTAL	100.0	100.0	13374	12.9	4.58	5.29	7.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING BENCH: MIDDLE
COUNTY: CLEARFIELD RAW COAL MOISTURE: .7 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.8	5.7	14576	3.7	.60	1.56	2.1
FLOAT-1.40	51.4	57.2	13585	10.3	1.46	2.40	3.5
FLOAT-1.60	83.0	88.7	13044	13.9	2.29	3.27	5.0
TOTAL	100.0	100.0	12203	19.5	4.02	4.91	8.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.9	11.8	14516	4.1	.56	1.90	2.6
FLOAT-1.40	57.9	65.3	13720	9.4	1.27	2.60	3.8
FLOAT-1.60	81.2	88.4	13240	12.6	1.80	2.99	4.5
TOTAL	100.0	100.0	12158	19.8	4.07	5.14	8.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.3	17.4	14636	3.3	.44	1.50	2.0
FLOAT-1.40	55.8	64.6	13945	7.9	.99	1.87	2.7
FLOAT-1.60	78.5	87.2	13390	11.6	1.51	2.26	3.4
TOTAL	100.0	100.0	12053	20.5	4.09	4.87	8.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING BENCH: BOTTOM
COUNTY: CLEARFIELD RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.6	42.0	14691	4.1	.25	1.04	1.4
FLOAT-1.40	61.7	72.9	14276	6.8	.69	1.46	2.0
FLOAT-1.60	77.9	88.7	13768	10.1	1.10	1.84	2.7
TOTAL	100.0	100.0	12090	21.0	1.85	2.50	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.2	46.5	14753	3.7	.25	1.05	1.4
FLOAT-1.40	63.1	74.7	14352	6.3	.56	1.36	1.9
FLOAT-1.60	77.0	88.4	13922	9.1	.86	1.62	2.3
TOTAL	100.0	100.0	12121	20.8	1.91	2.54	4.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.9	41.1	14845	3.1	.14	.92	1.2
FLOAT-1.40	60.0	70.8	14445	5.7	.38	1.15	1.6
FLOAT-1.60	78.6	89.4	13922	9.1	.67	1.42	2.0
TOTAL	100.0	100.0	12244	20.0	1.86	2.49	4.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: CLINTON RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.3	68.1	15102	2.6	.62	1.73	2.3
FLOAT-1.40	82.4	86.2	14917	3.8	1.11	2.18	2.9
FLOAT-1.60	90.6	93.6	14731	5.0	1.62	2.64	3.6
TOTAL	100.0	100.0	14252	8.1	2.87	3.82	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.0	74.5	15149	2.3	.46	1.55	2.0
FLOAT-1.40	82.5	87.0	15009	3.2	.74	1.80	2.4
FLOAT-1.60	89.1	93.0	14855	4.2	1.10	2.13	2.9
TOTAL	100.0	100.0	14237	8.2	2.93	3.90	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.3	66.0	15179	2.1	.33	1.49	2.0
FLOAT-1.40	78.9	83.0	15071	2.8	.54	1.65	2.2
FLOAT-1.60	90.7	94.5	14932	3.7	.83	1.84	2.5
TOTAL	100.0	100.0	14329	7.6	2.88	3.83	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING BENCH: TOP
COUNTY: INDIANA RAW COAL MOISTURE: 1.1 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.3	57.3	14938	3.1	.29	1.19	1.6
FLOAT-1.40	86.5	89.6	14661	4.9	.64	1.57	2.1
FLOAT-1.60	93.8	96.0	14492	6.0	.95	1.88	2.6
TOTAL	100.0	100.0	14154	8.2	2.33	3.28	4.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.2	60.8	14968	2.9	.25	1.15	1.5
FLOAT-1.40	85.1	88.9	14707	4.6	.48	1.41	1.9
FLOAT-1.60	93.0	95.8	14507	5.9	.76	1.69	2.3
TOTAL	100.0	100.0	14077	8.7	2.45	3.45	4.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.8	58.6	15091	2.1	.23	1.07	1.4
FLOAT-1.40	84.1	88.3	14815	3.9	.33	1.22	1.6
FLOAT-1.60	94.0	97.4	14615	5.2	.52	1.43	2.0
TOTAL	100.0	100.0	14108	8.5	2.40	3.41	4.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: INDIANA RAW COAL MOISTURE: .7 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.7	45.4	14732	3.6	.14	1.03	1.4
FLOAT-1.40	63.8	77.1	14388	5.8	.50	1.32	1.8
FLOAT-1.60	71.9	85.4	14137	7.4	.85	1.67	2.4
TOTAL	100.0	100.0	11900	21.7	3.89	4.59	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.5	51.0	14763	3.4	.22	1.06	1.4
FLOAT-1.40	65.2	78.5	14466	5.3	.42	1.25	1.7
FLOAT-1.60	73.1	86.6	14231	6.8	.65	1.47	2.1
TOTAL	100.0	100.0	12009	21.0	3.87	4.58	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.9	45.8	14842	2.9	.18	1.03	1.4
FLOAT-1.40	63.3	76.7	14497	5.1	.35	1.17	1.6
FLOAT-1.60	72.2	85.5	14169	7.2	.60	1.43	2.0
TOTAL	100.0	100.0	11962	21.3	4.04	4.72	7.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.0	73.2	14786	3.4	.01	.81	1.1
FLOAT-1.40	92.6	94.1	14578	4.7	.03	.82	1.1
FLOAT-1.60	98.7	99.2	14419	5.7	.08	.86	1.2
TOTAL	100.0	100.0	14339	6.2	.17	.95	1.3
EPA STANDARD	99.1	99.6	14415	5.8	.09	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	73.3	76.0	14850	3.0	.02	.78	1.1
FLOAT-1.40	92.7	94.8	14642	4.3	.03	.78	1.1
FLOAT-1.60	97.2	98.5	14515	5.1	.06	.80	1.1
TOTAL	100.0	100.0	14323	6.3	.20	.92	1.3
EPA STANDARD	98.7	99.3	14412	6.3	.14	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.6	68.1	14850	3.0	.02	.79	1.1
FLOAT-1.40	90.6	93.2	14722	3.8	.03	.81	1.1
FLOAT-1.60	96.5	98.2	14562	4.8	.06	.80	1.1
TOTAL	100.0	100.0	14307	6.4	.19	.92	1.3
EPA STANDARD	98.4	99.2	14424	5.7	.06	.86	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.6	47.8	14493	3.7	.20	1.30	1.8
FLOAT-1.40	50.1	69.5	14137	6.0	.41	1.40	2.0
FLOAT-1.60	60.9	82.1	13751	8.5	.89	1.79	2.6
TOTAL	100.0	100.0	10195	31.5	4.22	4.68	9.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.4	54.1	14539	3.4	.18	1.01	1.4
FLOAT-1.40	50.5	71.5	14230	5.4	.30	1.11	1.6
FLOAT-1.60	59.5	81.9	13844	7.9	.53	1.31	1.9
TOTAL	100.0	100.0	10056	32.4	4.26	4.77	9.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.7	42.1	14617	2.9	.14	1.00	1.4
FLOAT-1.40	51.1	70.9	14292	5.0	.27	1.10	1.5
FLOAT-1.60	61.7	83.2	13890	7.6	.45	1.27	1.8
TOTAL	100.0	100.0	10303	30.8	4.17	4.85	9.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	73.2	77.2	14958	3.5	.05	.79	1.1
FLOAT-1.40	85.8	89.3	14770	4.7	.07	.80	1.1
FLOAT-1.60	97.7	98.9	14361	7.3	.08	.78	1.1
TOTAL	100.0	100.0	14188	8.4	.13	.82	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.1	75.5	15021	3.1	.04	.79	1.1
FLOAT-1.40	84.4	88.5	14832	4.3	.05	.79	1.1
FLOAT-1.60	96.2	98.0	14408	7.0	.06	.77	1.1
TOTAL	100.0	100.0	14141	8.7	.13	.83	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.7	67.1	15115	2.5	.04	.80	1.1
FLOAT-1.40	84.6	89.1	14880	4.0	.05	.77	1.0
FLOAT-1.60	94.6	97.1	14502	6.4	.06	.80	1.1
TOTAL	100.0	100.0	14125	8.8	.15	.89	1.3
EPA STANDARD	97.9	98.9	14270	8.4	.10	.85	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.4	28.8	14685	3.8	.09	.86	1.2
FLOAT-1.40	66.2	72.2	14139	7.4	.20	.93	1.3
FLOAT-1.60	87.5	91.9	13608	10.9	.28	.93	1.4
TOTAL	100.0	100.0	12956	15.2	.43	1.04	1.6
EPA STANDARD	31.3	36.1	14576	3.8	.10	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.4	36.0	14731	3.5	.05	.82	1.1
FLOAT-1.40	67.1	74.5	14276	6.5	.10	.84	1.2
FLOAT-1.60	84.8	90.7	13760	9.9	.16	.84	1.2
TOTAL	100.0	100.0	12865	15.8	.46	1.07	1.7
EPA STANDARD	77.1	84.1	14005	8.2	.13	.84	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.0	38.2	14822	2.9	.07	.91	1.2
FLOAT-1.40	63.9	72.2	14473	5.2	.05	.75	1.0
FLOAT-1.60	82.0	88.9	13881	9.1	.09	.75	1.1
TOTAL	100.0	100.0	12804	16.2	.46	1.05	1.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: INDIANA RAW COAL MOISTURE: .4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.2	63.4	14767	3.7	.36	1.45	2.0
FLOAT-1.40	70.9	81.7	14537	5.2	.57	1.66	2.3
FLOAT-1.60	78.5	88.9	14291	6.8	.76	1.87	2.6
FLOAT-1.90	85.0	93.5	13877	9.5	.98	2.10	3.0
TOTAL	100.0	100.0	12620	17.7	2.85	4.31	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.5	65.6	14920	2.7	.21	1.22	1.6
FLOAT-1.40	70.2	81.7	14690	4.2	.37	1.38	1.9
FLOAT-1.60	77.4	88.6	14445	5.8	.52	1.53	2.1
FLOAT-1.90	84.0	93.3	14015	8.6	.71	1.74	2.5
TOTAL	100.0	100.0	12620	17.7	2.79	4.23	6.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.6	60.8	14951	2.5	.19	1.22	1.6
FLOAT-1.40	70.0	81.0	14675	4.3	.39	1.41	1.9
FLOAT-1.60	78.6	89.4	14429	5.9	.53	1.55	2.1
FLOAT-1.90	84.0	93.3	14092	8.1	.69	1.70	2.4
TOTAL	100.0	100.0	12681	17.3	2.88	4.31	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: INDIANA RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.9	69.5	14848	3.4	.52	1.42	1.9
FLOAT-1.40	79.5	86.7	14648	4.7	.68	1.60	2.2
FLOAT-1.60	86.5	93.0	14449	6.0	.86	1.80	2.5
FLOAT-1.90	91.1	96.3	14203	7.6	1.05	2.03	2.9
TOTAL	100.0	100.0	13434	12.6	2.23	3.43	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.4	70.5	14910	3.0	.27	1.17	1.6
FLOAT-1.40	79.9	87.7	14710	4.3	.42	1.35	1.8
FLOAT-1.60	85.6	93.0	14556	5.3	.56	1.50	2.1
FLOAT-1.90	89.6	95.9	14341	6.7	.72	1.67	2.3
TOTAL	100.0	100.0	13403	12.8	2.15	3.36	5.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,[illegible]	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.6	63.2	14956	2.7	.26	1.15	1.5
FLOAT-1.40	75.9	83.6	14771	3.9	.40	1.29	1.7
FLOAT-1.60	85.4	92.8	14572	5.2	.57	1.49	2.0
FLOAT-1.90	89.2	95.6	14372	6.5	.72	1.65	2.3
TOTAL	100.0	100.0	13403	12.8	2.36	3.59	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.3	46.9	14905	3.8	.82	1.72	2.3
FLOAT-1.40	76.8	83.4	14580	5.9	1.26	2.19	3.0
FLOAT-1.60	86.2	92.3	14379	7.2	1.60	2.59	3.6
FLOAT-1.90	90.1	95.2	14193	8.4	1.90	2.94	4.1
TOTAL	100.0	100.0	13433	13.3	3.41	4.74	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.0	54.9	15029	3.0	.64	1.56	2.1
FLOAT-1.40	76.8	84.2	14719	5.0	.95	1.87	2.5
FLOAT-1.60	84.4	91.5	14549	6.1	1.20	2.15	3.0
FLOAT-1.90	88.0	94.3	14379	7.2	1.43	2.40	3.3
TOTAL	100.0	100.0	13418	13.4	3.44	4.74	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.4	47.1	14998	3.2	.72	1.49	2.0
FLOAT-1.40	76.9	83.9	14719	5.0	.99	1.82	2.5
FLOAT-1.60	85.7	92.4	14549	6.1	1.25	2.10	2.9
FLOAT-1.90	88.7	94.7	14410	7.0	1.44	2.31	3.2
TOTAL	100.0	100.0	13495	12.9	3.38	4.68	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.4	51.4	14849	3.5	.47	1.29	1.7
FLOAT-1.40	75.5	83.7	14541	5.5	.90	1.77	2.4
FLOAT-1.60	83.8	91.9	14372	6.6	1.25	2.19	3.0
FLOAT-1.90	86.7	94.0	14218	7.6	1.64	2.68	3.8
TOTAL	100.0	100.0	13110	14.8	3.69	5.00	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.6	60.6	14849	3.5	.46	1.24	1.7
FLOAT-1.40	76.9	85.6	14633	4.9	.72	1.53	2.1
FLOAT-1.60	83.1	91.7	14495	5.8	.95	1.80	2.5
FLOAT-1.90	86.0	94.1	14372	6.6	1.19	2.09	2.9
TOTAL	100.0	100.0	13141	14.6	3.74	5.04	7.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.9	48.8	14941	2.9	.39	1.20	1.6
FLOAT-1.40	75.8	84.5	14649	4.8	.70	1.55	2.1
FLOAT-1.60	82.9	91.4	14495	5.8	.91	1.80	2.5
FLOAT-1.90	86.1	94.2	14372	6.6	1.11	2.04	2.8
TOTAL	100.0	100.0	13141	14.6	3.67	5.01	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: INDIANA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.9	53.8	14776	3.8	.53	1.43	1.9
FLOAT-1.40	71.4	83.9	14500	5.6	.79	1.73	2.4
FLOAT-1.60	78.5	91.1	14316	6.8	1.04	2.03	2.8
FLOAT-1.90	81.4	93.5	14162	7.8	1.28	2.31	3.3
TOTAL	100.0	100.0	12334	19.7	3.31	4.66	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.1	61.7	14822	3.5	.37	1.25	1.7
FLOAT-1.40	70.5	84.0	14623	4.8	.56	1.44	2.0
FLOAT-1.60	77.0	90.6	14439	6.0	.75	1.66	2.3
FLOAT-1.90	79.7	92.9	14300	6.9	.90	1.83	2.6
TOTAL	100.0	100.0	12273	20.1	3.37	4.64	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.5	44.7	14853	3.3	.27	1.11	1.5
FLOAT-1.40	71.8	84.0	14592	5.0	.58	1.46	2.0
FLOAT-1.60	79.0	91.3	14408	6.2	.75	1.67	2.3
FLOAT-1.90	82.2	93.9	14254	7.2	.91	1.86	2.6
TOTAL	100.0	100.0	12473	18.8	3.19	4.55	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: JEFFERSON

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.8	48.1	14535	3.8	.24	.91	1.3
FLOAT-1.40	90.6	93.0	14198	6.0	.30	1.08	1.5
FLOAT-1.60	96.9	98.3	14030	7.1	.36	1.12	1.6
TOTAL	100.0	100.0	13831	8.4	.58	1.34	1.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.7	57.7	14596	3.4	.11	.87	1.2
FLOAT-1.40	90.2	92.8	14229	5.8	.26	1.05	1.5
FLOAT-1.60	96.1	97.8	14076	6.8	.29	1.08	1.5
TOTAL	100.0	100.0	13831	8.4	.57	1.33	1.9
EPA STANDARD	55.8	58.9	14586	3.4	.11	.88	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.5	64.0	14672	2.9	.15	.85	1.2
FLOAT-1.40	87.9	91.1	14366	4.9	.22	.99	1.4
FLOAT-1.60	95.1	97.5	14214	5.9	.28	1.03	1.4
TOTAL	100.0	100.0	13862	8.2	.62	1.34	1.9
EPA STANDARD	66.3	70.0	14615	3.2	.15	.88	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: LAWRENCE RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.0	43.7	14104	3.9	.49	1.17	1.7
FLOAT-1.40	73.8	80.2	13679	6.8	1.37	1.98	2.9
FLOAT-1.60	88.5	93.9	13356	9.0	1.97	2.57	3.8
TOTAL	100.0	100.0	12594	14.2	3.18	3.73	5.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.9	56.5	14206	3.2	.30	.94	1.3
FLOAT-1.40	73.4	81.4	13898	5.3	.69	1.32	1.9
FLOAT-1.60	85.8	92.8	13561	7.6	1.10	1.71	2.5
TOTAL	100.0	100.0	12536	14.6	3.09	3.61	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.7	57.8	14279	2.7	.14	.88	1.2
FLOAT-1.40	71.2	79.7	14030	4.4	.41	1.13	1.6
FLOAT-1.60	84.6	92.4	13693	6.7	.66	1.39	2.0
TOTAL	100.0	100.0	12536	14.6	3.25	3.90	6.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: LOWER KITTANNING
COUNTY: SOMEPSET RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.5	32.7	14586	3.5	.38	.84	1.2
FLOAT-1.40	58.6	76.3	14208	6.0	.98	1.41	2.0
FLOAT-1.60	68.3	87.4	13966	7.6	1.14	1.57	2.2
FLOAT-1.90	73.7	92.0	13619	9.9	1.35	1.78	2.6
TOTAL	100.0	100.0	10913	27.8	2.55	2.93	5.4
EPA STANDARD	26.6	35.6	14564	3.5	.42	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.8	27.7	14707	2.7	.26	.74	1.0
FLOAT-1.40	59.6	77.7	14405	4.7	.50	.99	1.4
FLOAT-1.60	69.2	88.8	14178	6.2	.61	1.17	1.7
FLOAT-1.90	72.7	92.2	14012	7.3	.71	1.28	1.8
TOTAL	100.0	100.0	11049	26.9	2.46	2.89	5.2
EPA STANDARD	44.9	59.0	14548	3.8	.40	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.2	32.1	14631	3.2	.26	1.06	1.4
FLOAT-1.40	59.9	77.6	14269	5.6	.56	1.22	1.7
FLOAT-1.60	68.5	87.2	14027	7.2	.75	1.40	2.0
FLOAT-1.90	71.9	90.0	13785	8.8	.89	1.52	2.2
TOTAL	100.0	100.0	11019	27.1	2.41	2.89	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: TIOGA

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	9.0	14.5	14562	3.2	.23	.90	1.2
FLOAT-1.40	30.6	47.4	14046	6.6	.75	1.54	2.2
FLOAT-1.60	53.6	76.7	12970	13.7	1.24	2.02	3.1
TOTAL	100.0	100.0	9060	39.5	1.57	2.07	4.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.1	19.3	14592	3.0	.35	1.18	1.6
FLOAT-1.40	33.6	51.9	14152	5.9	.73	1.49	2.1
FLOAT-1.60	51.9	75.2	13273	11.7	1.13	1.88	2.8
TOTAL	100.0	100.0	9167	38.8	1.66	2.09	4.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.5	19.2	14562	3.2	.31	1.26	1.7
FLOAT-1.40	33.9	50.8	14183	5.7	.62	1.42	2.0
FLOAT-1.60	53.4	74.9	13273	11.7	1.00	1.81	2.7
TOTAL	100.0	100.0	9470	36.8	1.62	2.12	4.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CENTRE

COALBED: CLARION
RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.2	57.4	15032	2.2	.07	.81	1.1
FLOAT-1.40	75.8	81.3	14662	4.6	.15	.89	1.2
FLOAT-1.60	93.4	96.7	14153	7.9	.25	.93	1.3
TOTAL	100.0	100.0	13674	11.0	.60	1.25	1.8
EPA STANDARD	73.4	79.0	14700	4.2	.14	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.8	59.3	15047	2.1	.07	.99	1.3
FLOAT-1.40	76.2	82.1	14708	4.3	.12	.98	1.3
FLOAT-1.60	92.0	95.8	14214	7.5	.18	.99	1.4
TOTAL	100.0	100.0	13643	11.2	.56	1.31	1.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.3	54.9	15109	1.7	.05	.77	1.0
FLOAT-1.40	74.0	80.7	14801	3.7	.07	.79	1.1
FLOAT-1.60	91.0	95.8	14276	7.1	.10	.81	1.1
TOTAL	100.0	100.0	13566	11.7	.70	1.34	2.0
EPA STANDARD	91.7	96.1	14221	10.0	.13	.83	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLARION

COALBED: CLARION
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.3	48.7	14530	3.8	.60	2.05	2.8
FLOAT-1.40	80.2	84.0	14153	6.3	1.37	2.94	4.2
FLOAT-1.60	94.0	96.1	13821	8.5	1.80	3.36	4.9
TOTAL	100.0	100.0	13519	10.5	2.71	4.27	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.7	51.6	14530	3.8	.51	2.03	2.8
FLOAT-1.40	79.0	83.2	14153	6.3	1.20	2.85	4.0
FLOAT-1.60	92.9	95.5	13821	8.5	1.67	3.29	4.8
TOTAL	100.0	100.0	13443	11.0	2.76	4.33	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.6	58.0	14651	3.0	.38	1.89	2.6
FLOAT-1.40	78.5	83.0	14334	5.1	.80	2.44	3.4
FLOAT-1.60	92.4	96.1	14093	6.7	1.14	2.81	4.0
TOTAL	100.0	100.0	13549	10.3	2.64	4.28	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLARION

COALBED: CLARION
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.0	54.6	15274	4.7	1.25	2.75	3.6
FLOAT-1.40	68.4	78.1	15015	6.3	1.72	3.58	4.8
FLOAT-1.60	77.2	86.9	14805	7.6	2.28	4.31	5.8
FLOAT-1.90	81.2	90.3	14626	8.7	2.73	4.87	6.7
TOTAL	100.0	100.0	13152	17.8	7.00	9.41	14.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLF CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.3	57.3	15323	4.4	.95	2.46	3.2
FLOAT-1.40	70.3	80.3	15064	6.0	1.41	3.24	4.3
FLOAT-1.60	77.8	87.8	14886	7.1	1.88	3.85	5.2
FLOAT-1.90	81.6	91.1	14724	8.1	2.32	4.40	6.0
TOTAL	100.0	100.0	13184	17.6	6.71	9.27	14.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.9	54.1	15453	3.6	.56	2.08	2.7
FLOAT-1.40	67.1	77.8	15193	5.2	.99	2.81	3.7
FLOAT-1.60	75.7	86.7	14999	6.4	1.48	3.46	4.6
FLOAT-1.90	80.1	90.5	14805	7.6	1.96	4.06	5.5
TOTAL	100.0	100.0	13103	18.1	6.92	9.51	14.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLARION

COALBED: CLARION
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.2	73.4	14111	4.5	.18	.91	1.3
FLOAT-1.40	76.9	85.7	13963	5.5	.34	1.12	1.6
FLOAT-1.60	86.3	94.2	13683	7.4	.49	1.30	1.9
FLOAT-1.90	89.9	96.7	13476	8.8	.60	1.44	2.1
TOTAL	100.0	100.0	12530	15.2	1.57	2.51	4.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.6	73.4	14274	3.4	.12	.86	1.2
FLOAT-1.40	76.8	86.1	14082	4.7	.28	1.03	1.5
FLOAT-1.60	85.4	93.9	13816	6.5	.37	1.14	1.7
FLOAT-1.90	89.4	96.7	13579	8.1	.42	1.19	1.8
TOTAL	100.0	100.0	12560	15.0	1.48	2.38	3.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.0	73.0	14274	3.4	.12	.86	1.2
FLOAT-1.40	77.6	86.9	14008	5.2	.24	.98	1.4
FLOAT-1.60	85.4	93.8	13742	7.0	.32	1.06	1.5
FLOAT-1.90	90.1	97.0	13476	8.8	.37	1.11	1.6
TOTAL	100.0	100.0	12515	15.3	1.41	2.32	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CLARION

COALBED: CLARION
RAW COAL MOISTURE: 1.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.0	43.4	14455	3.1	.98	2.44	3.4
FLOAT-1.40	62.7	70.0	14126	5.3	1.87	3.27	4.6
FLOAT-1.60	79.6	86.2	13707	8.1	3.09	4.45	6.5
TOTAL	100.0	100.0	12659	15.1	6.81	8.08	12.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.6	52.3	14560	2.4	.61	2.02	2.8
FLOAT-1.40	65.1	73.2	14276	4.3	1.26	2.63	3.7
FLOAT-1.60	79.0	86.6	13917	6.7	2.26	3.57	5.1
TOTAL	100.0	100.0	12689	14.9	6.80	8.02	12.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.3	53.6	14635	1.9	.33	1.63	2.2
FLOAT-1.40	63.7	72.5	14396	3.5	.90	2.21	3.1
FLOAT-1.60	78.5	86.9	13991	6.2	1.90	3.18	4.5
TOTAL	100.0	100.0	12644	15.2	7.01	8.19	13.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: BUTLER

COALBED: BROOKVILLE
RAW COAL MOISTURE: 3.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.5	4.8	13661	2.2	.04	1.35	2.0
FLOAT-1.40	86.8	90.3	13325	4.6	.01	.89	1.3
FLOAT-1.60	94.1	96.9	13185	5.6	.02	.87	1.3
TOTAL	100.0	100.0	12807	8.3	.03	.84	1.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.8	8.4	13731	1.7	.04	1.07	1.6
FLOAT-1.40	85.4	89.3	13409	4.0	.05	.82	1.2
FLOAT-1.60	93.2	96.4	13255	5.1	.05	.81	1.2
TOTAL	100.0	100.0	12821	8.2	.06	.78	1.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.6	11.4	13745	1.6	.04	1.07	1.6
FLOAT-1.40	83.3	87.7	13465	3.6	.04	.82	1.2
FLOAT-1.60	92.9	96.5	13283	4.9	.04	.82	1.2
TOTAL	100.0	100.0	12793	8.4	.04	.79	1.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CENTRE

COALBED: BROOKVILLE
RAW COAL MOISTURE: .6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.1	56.9	15168	2.2	.07	.74	1.0
FLOAT-1.40	74.7	80.9	15028	3.1	.16	.79	1.1
FLOAT-1.60	92.0	95.4	14394	7.2	.18	.79	1.1
TOTAL	100.0	100.0	13883	10.5	.25	.83	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.1	61.7	15199	2.0	.03	.67	.9
FLOAT-1.40	73.7	80.3	15059	2.9	.07	.67	.9
FLOAT-1.60	89.3	93.9	14533	6.3	.10	.65	.9
TOTAL	100.0	100.0	13821	10.9	.24	.76	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.1	48.5	15276	1.5	.03	.66	.9
FLOAT-1.40	72.7	78.9	15090	2.7	.03	.67	.9
FLOAT-1.60	89.9	94.4	14595	5.9	.13	.72	1.0
TOTAL	100.0	100.0	13899	10.4	.26	.82	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: PA. (BITUMINOUS)
COUNTY: LAWRENCE

COALBED: BROOKVILLE
RAW COAL MOISTURE: 2.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.5	72.3	14397	2.5	.11	.72	1.0
FLOAT-1.40	90.0	93.5	14162	4.1	.43	1.10	1.6
FLOAT-1.60	94.2	97.1	14059	4.8	.60	1.28	1.8
TOTAL	100.0	100.0	13634	7.7	1.04	1.70	2.5
EPA STANDARD	78.3	82.1	14312	3.1	.22	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.9	75.0	14441	2.2	.12	.71	1.0
FLOAT-1.40	88.7	92.5	14235	3.6	.34	.89	1.3
FLOAT-1.60	93.8	96.9	14103	4.5	.54	1.11	1.6
TOTAL	100.0	100.0	13649	7.6	1.13	1.69	2.5
EPA STANDARD	86.3	90.2	14274	3.4	.30	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.5	70.5	14499	1.8	.12	.75	1.0
FLOAT-1.40	85.5	89.5	14323	3.0	.30	.98	1.4
FLOAT-1.60	93.5	96.4	14103	4.5	.56	1.23	1.7
TOTAL	100.0	100.0	13678	7.4	1.15	1.80	2.6
EPA STANDARD	77.3	81.5	14412	2.4	.20	.86	1.20

STATE: PA. (BITUMINOUS)
COUNTY: LAWRENCE

COALBED: BROOKVILLE
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	80.1	82.2	14432	2.3	.57	.95	1.3
FLOAT-1.40	94.2	95.9	14315	3.1	.94	1.37	1.9
FLOAT-1.60	96.6	98.0	14271	3.4	1.10	1.55	2.2
TOTAL	100.0	100.0	14065	4.8	1.88	2.35	3.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	86.2	88.9	14521	1.7	.18	.70	1.0
FLOAT-1.40	92.9	95.3	14447	2.2	.37	.88	1.2
FLOAT-1.60	95.0	97.2	14403	2.5	.51	1.03	1.4
TOTAL	100.0	100.0	14080	4.7	1.80	2.35	3.3
EPA STANDARD	92.6	95.0	14452	2.2	.36	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	89.2	92.9	14638	.9	.07	.52	.7
FLOAT-1.40	93.0	96.5	14579	1.3	.13	.57	.8
FLOAT-1.60	94.3	97.6	14535	1.6	.20	.64	.9
TOTAL	100.0	100.0	14051	4.9	1.85	2.50	3.6
EPA STANDARD	98.0	97.8	14477	2.5	.42	.87	1.20

STATE: PA. (BITUMINOUS) COALBED: BROOKVILLE
COUNTY: MERCER RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.1	61.5	13977	4.6	.37	2.14	3.1
FLOAT-1.40	80.1	86.5	13757	6.1	.73	2.49	3.6
FLOAT-1.60	86.0	91.9	13625	7.0	1.15	2.88	4.2
TOTAL	100.0	100.0	12743	13.0	5.12	6.61	10.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.0	66.0	14036	4.2	.33	1.96	2.8
FLOAT-1.40	79.7	86.3	13816	5.7	.60	2.21	3.2
FLOAT-1.60	85.3	91.5	13683	6.6	.96	2.55	3.7
TOTAL	100.0	100.0	12758	12.9	5.38	6.74	10.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.2	60.1	14139	3.5	.33	1.88	2.7
FLOAT-1.40	77.5	84.4	13889	5.2	.52	2.07	3.0
FLOAT-1.60	85.2	91.7	13727	6.3	.87	2.39	3.5
TOTAL	100.0	100.0	12758	12.9	5.23	6.65	10.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: PA. (BITUMINOUS) COALBED: UNCORRELATED BENCH: TOP
COUNTY: TIOGA RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.0	21.5	15112	2.4	.03	.54	.7
FLOAT-1.40	82.8	85.2	14446	6.6	.01	.56	.8
FLOAT-1.60	97.9	98.7	14144	8.5	.02	.58	.8
TOTAL	100.0	100.0	14033	9.2	.03	.58	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.9	30.1	15160	2.1	.01	.56	.7
FLOAT-1.40	80.8	83.7	14573	5.8	.01	.58	.8
FLOAT-1.60	96.6	98.0	14271	7.7	.01	.58	.8
TOTAL	100.0	100.0	14064	9.0	.03	.59	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.7	24.7	15240	1.6	.01	.60	.8
FLOAT-1.40	70.7	74.4	14747	4.7	.01	.61	.8
FLOAT-1.60	94.7	97.1	14366	7.1	.01	.61	.8
TOTAL	100.0	100.0	14017	9.3	.03	.62	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: PA. (BITUMINOUS) COALBED: UNCORRELATED BENCH: MIDDLE
COUNTY: TIOGA RAW COAL MOISTURE: .8 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.9	12.7	14826	3.1	.07	.68	.9
FLOAT-1.40	73.5	80.9	14000	8.5	.33	.95	1.4
FLOAT-1.60	83.1	90.3	13816	9.7	.43	1.05	1.5
TOTAL	100.0	100.0	12714	16.9	.71	1.27	2.0
EPA STANDARD	57.3	63.7	14295	6.9	.24	.85	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	13.6	16.1	14842	3.0	.07	.67	.9
FLOAT-1.40	71.0	78.6	14107	7.8	.22	.76	1.1
FLOAT-1.60	83.3	90.6	13862	9.4	.33	.85	1.2
TOTAL	100.0	100.0	12745	16.7	.69	1.16	1.8
EPA STANDARD	81.1	88.5	13905	9.3	.31	.83	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.6	14.6	14888	2.7	.07	.86	1.2
FLOAT-1.40	60.5	67.5	14291	6.6	.11	.63	.9
FLOAT-1.60	84.4	91.6	13893	9.2	.22	.72	1.0
TOTAL	100.0	100.0	12806	16.3	.79	1.23	1.9
EPA STANDARD	87.3	93.1	13692	11.5	.33	.81	1.20

STATE: PA. (BITUMINOUS) COALBED: UNCORRELATED BENCH: BOTTOM
COUNTY: TIOGA RAW COAL MOISTURE: .8 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	12.3	14.8	14927	3.0	.04	.70	.9
FLOAT-1.40	55.4	63.5	14251	7.4	.06	.61	.9
FLOAT-1.60	83.5	90.3	13451	12.6	.12	.70	1.0
TOTAL	100.0	100.0	12436	19.2	.27	.86	1.4
EPA STANDARD	96.9	94.8	12979	16.2	.18	.78	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	18.9	22.5	14958	2.8	.05	.73	1.0
FLOAT-1.40	62.9	72.2	14420	6.3	.08	.70	1.0
FLOAT-1.60	81.8	90.5	13897	9.7	.13	.72	1.0
TOTAL	100.0	100.0	12559	18.4	.27	.91	1.4
EPA STANDARD	89.0	94.3	13366	15.8	.22	.78	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.9	21.1	14989	2.6	.03	.71	.9
FLOAT-1.40	59.8	68.4	14527	5.6	.03	.73	1.0
FLOAT-1.60	84.5	93.0	13974	9.2	.04	.67	1.0
TOTAL	100.0	100.0	12698	17.5	.29	.90	1.4
EPA STANDARD	92.6	96.7	13303	13.6	.07	.89	1.20

STATE: PA. (BITUMINOUS)
COUNTY: CAMBRIA

COALBED: L.KITT. " L.FREE.
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.5	62.6	15015	3.1	.22	.91	1.2
FLOAT-1.40	77.9	88.1	14767	4.7	.36	1.07	1.4
FLOAT-1.60	83.2	93.2	14627	5.6	.49	1.22	1.7
FLOAT-1.90	86.3	95.4	14441	6.8	.63	1.39	1.9
TOTAL	100.0	100.0	13062	15.7	1.62	2.52	3.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.6	70.1	15061	2.8	.17	.84	1.1
FLOAT-1.40	77.6	88.6	14860	4.1	.26	.93	1.3
FLOAT-1.60	82.3	93.2	14736	4.9	.35	1.03	1.4
FLOAT-1.90	85.1	95.2	14565	6.0	.43	1.13	1.6
TOTAL	100.0	100.0	13016	16.0	1.70	2.57	3.9
EPA STANDARD	72.6	83.2	14936	3.7	.23	.90	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.1	62.4	15077	2.7	.15	.80	1.1
FLOAT-1.40	76.1	86.3	14829	4.3	.23	.88	1.2
FLOAT-1.60	83.8	93.8	14643	5.5	.31	.98	1.3
FLOAT-1.90	86.4	95.8	14503	6.4	.38	1.06	1.5
TOTAL	100.0	100.0	13078	15.6	1.79	2.64	4.0
EPA STANDARD	77.6	87.9	14813	4.4	.24	.89	1.20

STATE: TENNESSEE
COUNTY: CAMPBELL

COALBED: WALNUT MOUNTAIN
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.4	64.8	14238	3.4	.02	.68	1.0
FLOAT-1.40	86.9	92.2	14076	4.5	.07	.69	1.0
FLOAT-1.60	92.4	97.2	13958	5.3	.10	.71	1.0
FLOAT-1.90	94.0	98.4	13884	5.8	.12	.73	1.1
TOTAL	100.0	100.0	13265	10.0	.21	.81	1.2
EPA STANDARD	99.4	99.8	13343	9.3	.20	.80	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.3	72.5	14371	2.5	0.00	.66	.9
FLOAT-1.40	86.6	92.6	14267	3.2	.01	.66	.9
FLOAT-1.60	91.1	96.8	14179	3.8	.02	.67	.9
FLOAT-1.90	92.8	98.0	14091	4.4	.03	.67	1.0
TOTAL	100.0	100.0	13339	9.5	.21	.81	1.2
EPA STANDARD	99.6	99.9	13380	9.2	.21	.80	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.5	71.5	14385	2.4	0.00	.63	.9
FLOAT-1.40	84.0	91.0	14282	3.1	0.00	.63	.9
FLOAT-1.60	88.7	95.5	14194	3.7	.01	.64	.9
FLOAT-1.90	91.5	97.5	14046	4.7	.02	.64	.9
TOTAL	100.0	100.0	13177	10.6	.21	.82	1.2
EPA STANDARD	98.9	99.7	13293	9.8	.20	.78	1.20

STATE: TENNESSEE
COUNTY: ANDERSON

COALBED: BIG MARY
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.7	39.1	14391	3.0	.48	2.22	3.1
FLOAT-1.40	87.0	89.7	13921	6.2	.69	2.38	3.4
FLOAT-1.60	94.7	96.8	13789	7.1	1.06	2.71	3.9
TOTAL	100.0	100.0	13496	9.1	1.99	3.57	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.0	44.9	14421	2.8	.39	2.13	3.0
FLOAT-1.40	84.6	87.9	14009	5.6	.59	2.26	3.2
FLOAT-1.60	94.0	96.4	13819	6.9	.89	2.52	3.6
TOTAL	100.0	100.0	13481	9.2	2.02	3.61	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.2	51.9	14450	2.6	.30	1.97	2.7
FLOAT-1.40	81.9	86.0	14098	5.0	.51	2.15	3.1
FLOAT-1.60	93.1	95.9	13819	6.9	.71	2.30	3.3
TOTAL	100.0	100.0	13422	9.6	2.15	3.66	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: TENNESSEE
COUNTY: SCOTT

COALBED: POPLAR LICK
RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.0	27.7	14409	3.1	.06	.86	1.2
FLOAT-1.40	91.9	93.2	13745	7.5	.05	.85	1.2
FLOAT-1.60	99.2	99.8	13624	8.3	.05	.84	1.2
TOTAL	100.0	100.0	13549	8.8	.11	.90	1.3
EPA STANDARD	35.6	37.2	14312	3.7	.04	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.2	35.4	14424	3.0	.03	.91	1.3
FLOAT-1.40	87.3	89.3	13850	6.8	.05	.89	1.3
FLOAT-1.60	98.3	99.2	13654	8.1	.06	.87	1.3
TOTAL	100.0	100.0	13534	8.9	.13	.93	1.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.3	37.8	14514	2.4	.02	.93	1.3
FLOAT-1.40	82.6	85.7	14077	5.3	.02	.86	1.2
FLOAT-1.60	97.1	98.4	13745	7.5	.04	.82	1.2
TOTAL	100.0	100.0	13564	8.7	.12	.90	1.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: TENNESSEE
COUNTY: CAMPBELL
COALBED: JORDAN
RAW COAL MOISTURE: 1.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.3	57.8	14549	1.8	.05	.69	.9
FLOAT-1.40	95.8	97.4	14416	2.7	.06	.69	1.0
FLOAT-1.60	98.1	99.4	14372	3.0	.06	.69	1.0
FLOAT-1.90	98.5	99.6	14342	3.2	.07	.70	1.0
TOTAL	100.0	100.0	14179	4.3	.14	.76	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.1	73.0	14564	1.7	.03	.68	.9
FLOAT-1.40	95.1	96.9	14446	2.5	.04	.68	.9
FLOAT-1.60	97.9	99.3	14387	2.9	.04	.68	.9
FLOAT-1.90	98.4	99.7	14372	3.0	.05	.69	1.0
TOTAL	100.0	100.0	14179	4.3	.13	.76	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.7	53.3	14579	1.6	.03	.67	.9
FLOAT-1.40	92.6	94.7	14461	2.4	.04	.68	.9
FLOAT-1.60	97.3	99.0	14387	2.9	.04	.68	.9
FLOAT-1.90	98.2	99.6	14342	3.2	.05	.69	1.0
TOTAL	100.0	100.0	14135	4.6	.15	.78	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: TENNESSEE
COUNTY: CAMPBELL
COALBED: JELLICO
RAW COAL MOISTURE: 3.2 %
BENCH: TOP

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	90.8	92.1	14543	1.5	.10	.79	1.1
FLOAT-1.40	97.7	98.9	14513	1.7	.12	.81	1.1
FLOAT-1.60	98.5	99.5	14484	1.9	.12	.81	1.1
TOTAL	100.0	100.0	14336	2.9	.14	.83	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	88.0	89.3	14543	1.5	.10	.79	1.1
FLOAT-1.40	97.6	98.8	14513	1.7	.11	.80	1.1
FLOAT-1.60	98.5	99.6	14499	1.8	.12	.81	1.1
TOTAL	100.0	100.0	14336	2.9	.15	.83	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.6	65.7	14543	1.5	.10	.76	1.0
FLOAT-1.40	96.9	98.4	14513	1.7	.11	.77	1.1
FLOAT-1.60	98.0	99.3	14484	1.9	.12	.78	1.1
TOTAL	100.0	100.0	14291	3.2	.18	.83	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: TENNESSEE
COUNTY: CAMPBELL

COALBED: JELLICO
RAW COAL MOISTURE: 3.0 %

BENCH: BOTTOM

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	76.8	78.6	14441	2.2	.29	.97	1.3
FLOAT-1.40	93.3	94.8	14339	2.9	.30	1.00	1.4
FLOAT-1.60	98.8	99.6	14223	3.7	.30	.98	1.4
TOTAL	100.0	100.0	14106	4.5	.31	.99	1.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	77.8	79.2	14471	2.0	.25	.95	1.3
FLOAT-1.40	95.2	96.4	14383	2.6	.26	.96	1.3
FLOAT-1.60	98.6	99.3	14310	3.1	.25	.95	1.3
TOTAL	100.0	100.0	14208	3.8	.26	.97	1.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.0	62.6	14485	1.9	.25	.93	1.3
FLOAT-1.40	89.6	91.5	14412	2.4	.28	.96	1.3
FLOAT-1.60	98.0	99.0	14266	3.4	.28	.94	1.3
TOTAL	100.0	100.0	14121	4.4	.29	.96	1.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: TENNESSEE
COUNTY: CLAIBORNE

COALBED: JELLICO
RAW COAL MOISTURE: 1.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.8	77.0	14509	2.5	.13	.73	1.0
FLOAT-1.40	84.4	93.6	14375	3.4	.17	.76	1.1
FLOAT-1.60	87.7	96.6	14271	4.1	.10	.77	1.1
FLOAT-1.90	90.0	98.1	14122	5.1	.20	.77	1.1
TOTAL	100.0	100.0	12961	12.9	.31	.83	1.3
EPA STANDARD	95.8	99.2	13454	11.6	.26	.79	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.3	80.2	14613	1.8	.09	.69	.9
FLOAT-1.40	84.0	93.8	14509	2.5	.12	.72	1.0
FLOAT-1.60	86.8	96.3	14420	3.1	.13	.73	1.0
FLOAT-1.90	89.1	97.8	14256	4.2	.14	.73	1.0
TOTAL	100.0	100.0	12991	12.7	.27	.80	1.2
EPA STANDARD	98.3	99.7	13184	11.4	.26	.78	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.3	64.8	14643	1.6	.06	.66	.9
FLOAT-1.40	80.7	89.9	14420	3.1	.12	.71	1.0
FLOAT-1.60	86.7	95.6	14271	4.1	.13	.72	1.0
FLOAT-1.90	90.0	97.9	14077	5.4	.14	.73	1.0
TOTAL	100.0	100.0	12946	13.0	.27	.80	1.2
EPA STANDARD	99.9	99.6	13151	11.8	.24	.79	1.20

STATE: TENNESSEE
COUNTY: MARION

COALBED: SEWANEE
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	8.6	9.4	14696	2.7	.03	.57	.8
FLOAT-1.40	91.5	94.7	13941	7.7	.08	.62	.9
FLOAT-1.60	96.0	98.8	13865	8.2	.13	.67	1.0
FLOAT-1.90	96.7	99.4	13850	8.3	.14	.68	1.0
TOTAL	100.0	100.0	13472	10.8	.19	.71	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.0	23.9	14711	2.6	.03	.53	.7
FLOAT-1.40	87.0	90.5	14107	6.6	.05	.55	.8
FLOAT-1.60	95.8	98.6	13956	7.6	.10	.59	.8
FLOAT-1.90	96.7	99.3	13926	7.8	.11	.60	.9
TOTAL	100.0	100.0	13563	10.2	.17	.64	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.2	28.7	14772	2.2	.03	.51	.7
FLOAT-1.40	77.1	81.3	14228	5.8	.04	.52	.7
FLOAT-1.60	95.3	98.3	13911	7.9	.09	.56	.8
FLOAT-1.90	96.7	99.6	13895	8.0	.11	.57	.8
TOTAL	100.0	100.0	13488	10.7	.18	.63	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: UTAH
COUNTY: CARBON

COALBED: UNCORRELATED
RAW COAL MOISTURE: 4.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.6	78.7	13836	4.5	.14	.62	.9
FLOAT-1.40	91.9	95.3	13778	4.9	.15	.63	.9
FLOAT-1.60	94.4	97.4	13706	5.4	.15	.64	.9
TOTAL	100.0	100.0	13286	8.3	.17	.67	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	73.3	76.6	13981	3.5	.09	.61	.9
FLOAT-1.40	91.6	95.1	13894	4.1	.11	.61	.9
FLOAT-1.60	94.5	97.6	13822	4.6	.12	.63	.9
TOTAL	100.0	100.0	13387	7.6	.16	.66	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.4	72.5	14068	2.9	.09	.54	.8
FLOAT-1.40	89.0	93.7	13967	3.6	.11	.55	.8
FLOAT-1.60	92.6	96.7	13865	4.3	.12	.57	.8
TOTAL	100.0	100.0	13272	8.4	.21	.68	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: UTAH
COUNTY: CARBON

COALBED: UNCORRELATED
RAW COAL MOISTURE: 4.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	92.3	93.3	13611	3.5	.06	.45	.7
FLOAT-1.40	98.3	98.9	13545	3.9	.06	.45	.7
FLOAT-1.60	99.2	99.7	13529	4.0	.06	.45	.7
TOTAL	100.0	100.0	13464	4.4	.08	.46	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	91.4	93.1	13692	3.0	.09	.45	.7
FLOAT-1.40	97.0	98.3	13627	3.4	.09	.45	.7
FLOAT-1.60	98.3	99.4	13594	3.6	.09	.45	.7
TOTAL	100.0	100.0	13448	4.5	.11	.46	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	89.2	91.3	13838	2.1	.08	.41	.6
FLOAT-1.40	96.1	98.0	13773	2.5	.08	.41	.6
FLOAT-1.60	97.8	99.4	13741	2.7	.08	.41	.6
TOTAL	100.0	100.0	13513	4.1	.11	.43	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: UTAH
COUNTY: CARBON

COALBED: CASTLE GATE A
RAW COAL MOISTURE: 5.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	91.0	92.3	13751	3.5	.04	.41	.6
FLOAT-1.40	96.7	97.6	13676	4.0	.04	.41	.6
FLOAT-1.60	98.5	99.0	13631	4.3	.04	.41	.6
TOTAL	100.0	100.0	13556	4.8	.05	.42	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	91.2	92.8	13781	3.3	.04	.37	.5
FLOAT-1.40	96.3	97.5	13706	3.8	.04	.37	.5
FLOAT-1.60	98.0	98.9	13661	4.1	.04	.37	.5
TOTAL	100.0	100.0	13541	4.9	.06	.38	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	86.7	89.0	13872	2.7	.04	.41	.6
FLOAT-1.40	95.1	97.1	13796	3.2	.04	.41	.6
FLOAT-1.60	97.0	98.6	13736	3.6	.04	.41	.6
TOTAL	100.0	100.0	13510	5.1	.07	.43	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: UTAH
COUNTY: CARBON

COALBED: SUBSEAM NO. 3
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.5	71.2	13890	4.2	.09	.50	.7
FLOAT-1.40	86.9	91.9	13718	5.4	.09	.49	.7
FLOAT-1.60	92.4	96.7	13575	6.4	.08	.48	.7
TOTAL	100.0	100.0	12973	10.6	.09	.45	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.3	72.2	13962	3.7	.09	.48	.7
FLOAT-1.40	86.9	92.2	13804	4.8	.09	.48	.7
FLOAT-1.60	91.9	96.7	13690	5.6	.09	.47	.7
TOTAL	100.0	100.0	13016	10.3	.11	.46	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	72.3	78.0	14062	3.0	.07	.46	.7
FLOAT-1.40	86.5	92.4	13919	4.0	.08	.46	.7
FLOAT-1.60	90.8	96.1	13790	4.9	.08	.45	.7
TOTAL	100.0	100.0	13030	10.2	.08	.42	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: UTAH
COUNTY: CARBON

COALBED: HIAWATHA
RAW COAL MOISTURE: 4.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.3	65.9	13665	3.8	.18	.60	.9
FLOAT-1.40	94.5	96.1	13345	6.0	.18	.60	.9
FLOAT-1.60	98.1	99.0	13244	6.7	.19	.61	.9
TOTAL	100.0	100.0	13127	7.5	.20	.62	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.2	70.2	13738	3.3	.08	.56	.8
FLOAT-1.40	92.6	94.6	13447	5.3	.16	.57	.8
FLOAT-1.60	97.6	98.8	13316	6.2	.16	.57	.9
TOTAL	100.0	100.0	13156	7.3	.19	.60	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.7	63.0	13855	2.5	.09	.53	.8
FLOAT-1.40	90.9	93.9	13564	4.5	.09	.54	.8
FLOAT-1.60	96.0	98.1	13418	5.5	.10	.54	.8
TOTAL	100.0	100.0	13127	7.5	.17	.61	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: UTAH
COUNTY: CARBON

COALBED: HIAWATHA
RAW COAL MOISTURE: 5.7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.6	59.3	13409	4.2	.11	.59	.9
FLOAT-1.40	87.1	91.0	13137	6.1	.10	.58	.9
FLOAT-1.60	94.9	97.6	12937	7.5	.10	.58	.9
TOTAL	100.0	100.0	12579	10.0	.11	.58	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.5	57.4	13566	3.1	.08	.58	.9
FLOAT-1.40	84.9	89.3	13309	4.9	.08	.60	.9
FLOAT-1.60	94.5	97.6	13065	6.6	.08	.60	.9
TOTAL	100.0	100.0	12650	9.5	.09	.59	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.2	55.4	13595	2.9	.09	.57	.8
FLOAT-1.40	81.4	86.6	13366	4.5	.09	.58	.9
FLOAT-1.60	92.5	96.4	13094	6.4	.09	.58	.9
TOTAL	100.0	100.0	12565	10.1	.12	.58	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: UTAH
COUNTY: EMERY

COALBED: FERRON J
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.0	42.5	13849	3.2	.04	.42	.6
FLOAT-1.40	89.3	90.7	13575	5.1	.07	.43	.6
FLOAT-1.60	98.9	99.3	13416	6.2	.07	.42	.6
TOTAL	100.0	100.0	13359	6.6	.07	.42	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.8	45.5	13892	2.9	.03	.42	.6
FLOAT-1.40	88.3	90.0	13618	4.8	.06	.41	.6
FLOAT-1.60	97.9	98.6	13460	5.9	.05	.41	.6
TOTAL	100.0	100.0	13359	6.6	.06	.41	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.1	46.0	13978	2.3	.01	.37	.5
FLOAT-1.40	85.9	88.1	13733	4.0	.04	.37	.5
FLOAT-1.60	96.7	97.9	13560	5.2	.05	.37	.5
TOTAL	100.0	100.0	13388	6.4	.06	.38	.6

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: UTAH
COUNTY: EMERY
COALBED: BLIND CANYON
RAW COAL MOISTURE: 2.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	91.0	92.6	14019	3.7	.11	.52	.7
FLOAT-1.40	96.4	97.6	13960	4.1	.12	.53	.8
FLOAT-1.60	98.5	99.2	13886	4.6	.13	.54	.8
TOTAL	100.0	100.0	13783	5.3	.15	.56	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	89.2	91.2	14122	3.0	.06	.51	.7
FLOAT-1.40	95.2	96.8	14048	3.5	.08	.52	.7
FLOAT-1.60	97.7	98.8	13974	4.0	.09	.53	.8
TOTAL	100.0	100.0	13812	5.1	.13	.56	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	86.4	89.6	14240	2.2	.04	.48	.7
FLOAT-1.40	93.1	96.0	14166	2.7	.05	.49	.7
FLOAT-1.60	95.9	98.4	14092	3.2	.06	.50	.7
TOTAL	100.0	100.0	13738	5.6	.15	.58	.8

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: VIRGINIA
COUNTY: WISE
COALBED: TAGGART
RAW COAL MOISTURE: 2.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.3	69.1	14723	1.9	.09	.71	1.0
FLOAT-1.40	97.9	98.5	14626	2.6	.14	.76	1.0
FLOAT-1.60	99.4	99.8	14598	2.8	.15	.77	1.1
TOTAL	100.0	100.0	14542	3.2	.19	.81	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.6	71.3	14736	1.8	.09	.71	1.0
FLOAT-1.40	97.3	97.9	14667	2.3	.12	.73	1.0
FLOAT-1.60	99.4	99.7	14626	2.6	.13	.75	1.0
TOTAL	100.0	100.0	14584	2.9	.16	.77	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.7	65.6	14792	1.4	.09	.72	1.0
FLOAT-1.40	95.6	96.3	14695	2.1	.11	.73	1.0
FLOAT-1.60	99.3	99.7	14639	2.5	.13	.74	1.0
TOTAL	100.0	100.0	14584	2.9	.17	.79	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: VIRGINIA
COUNTY: WISE

COALBED: KELLY
RAW COAL MOISTURE: 1.5 %
CUMULATIVE WASHABILITY DATA

BENCH: TOP

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.3	62.6	14725	3.6	.07	.63	.9
FLOAT-1.40	87.7	91.3	14528	4.9	.07	.62	.9
FLOAT-1.60	95.1	97.4	14286	6.5	.08	.61	.9
TOTAL	100.0	100.0	13952	8.7	.11	.62	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.9	61.5	14801	3.1	.07	.68	.9
FLOAT-1.40	86.9	90.8	14558	4.7	.07	.65	.9
FLOAT-1.60	94.8	97.3	14301	6.4	.07	.64	.9
TOTAL	100.0	100.0	13937	8.8	.10	.64	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.9	59.4	14892	2.5	.12	.68	.9
FLOAT-1.40	84.8	88.7	14665	4.0	.10	.64	.9
FLOAT-1.60	94.1	97.1	14452	5.4	.12	.62	.9
TOTAL	100.0	100.0	14013	8.3	.15	.63	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: VIRGINIA
COUNTY: WISE

COALBED: IMBODEN
RAW COAL MOISTURE: 1.8 %
CUMULATIVE WASHABILITY DATA

BENCH: BOTTOM

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	81.1	82.8	14967	1.6	.12	.90	1.2
FLOAT-1.40	96.0	96.9	14799	2.7	.22	.98	1.3
FLOAT-1.60	98.9	99.3	14722	3.2	.31	1.07	1.5
TOTAL	100.0	100.0	14661	3.6	.43	1.20	1.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	81.4	83.2	14982	1.5	.14	.68	1.2
FLOAT-1.40	95.8	96.9	14829	2.5	.23	.95	1.3
FLOAT-1.60	98.7	99.3	14753	3.0	.27	.99	1.3
TOTAL	100.0	100.0	14661	3.6	.47	1.18	1.6
EPA STANDARD	85.9	87.5	14946	1.8	.16	.90	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY.%		BTU/LB	ASH.%	SULFUR.%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	80.7	82.5	15013	1.3	.14	.86	1.1
FLOAT-1.40	94.7	95.9	14860	2.3	.20	.92	1.2
FLOAT-1.60	98.9	99.4	14753	3.0	.26	.97	1.3
TOTAL	100.0	100.0	14676	3.5	.43	1.13	1.5
EPA STANDARD	90.1	91.6	14923	1.9	.17	.90	1.20

STATE: VIRGINIA
COUNTY: WISE

COALBED: DORCHESTER
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	95.2	96.0	14930	1.3	.15	.86	1.2
FLOAT-1.40	98.5	99.2	14914	1.4	.17	.88	1.2
FLOAT-1.60	99.0	99.6	14899	1.5	.17	.88	1.2
TOTAL	100.0	100.0	14808	2.1	.26	.97	1.3
EPA STANDARD	99.1	99.7	14886	1.6	.18	.89	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	95.0	95.8	14960	1.1	.09	.65	1.1
FLOAT-1.40	98.2	98.9	14945	1.2	.10	.86	1.2
FLOAT-1.60	98.8	99.4	14930	1.3	.10	.86	1.2
TOTAL	100.0	100.0	14838	1.9	.23	.98	1.3
EPA STANDARD	99.1	99.6	14904	1.5	.14	.89	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	92.0	93.0	15006	.8	.09	.82	1.1
FLOAT-1.40	97.9	98.8	14975	1.0	.09	.82	1.1
FLOAT-1.60	98.6	99.5	14975	1.0	.10	.83	1.1
TOTAL	100.0	100.0	14838	1.9	.27	.99	1.3
EPA STANDARD	99.2	99.7	14920	1.2	.17	.90	1.20

STATE: VIRGINIA
COUNTY: DICKENSON

COALBED: SPLASH DAM
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.8	66.1	15035	2.3	.06	.79	1.1
FLOAT-1.40	67.6	83.4	14819	3.7	.12	.83	1.1
FLOAT-1.60	76.2	92.0	14495	5.8	.15	.83	1.1
TOTAL	100.0	100.0	12006	21.9	.25	.80	1.3
EPA STANDARD	90.5	94.3	13768	10.4	.20	.83	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.1	63.5	15035	2.3	.03	.79	1.1
FLOAT-1.40	63.3	80.7	14819	3.7	.09	.82	1.1
FLOAT-1.60	71.0	88.7	14510	5.7	.11	.82	1.1
TOTAL	100.0	100.0	11620	24.4	.27	.81	1.4
EPA STANDARD	88.9	91.7	13746	11.3	.16	.82	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.9	54.0	15082	2.0	.07	.80	1.1
FLOAT-1.40	62.9	77.8	14835	3.6	.09	.79	1.1
FLOAT-1.60	74.3	89.7	14479	5.9	.10	.79	1.1
TOTAL	100.0	100.0	11991	22.0	.27	.84	1.4
EPA STANDARD	83.3	93.3	13606	13.9	.15	.80	1.20

STATE: VIRGINIA
COUNTY: DICKENSON

COALBED: UPPER BANNER
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.9	68.6	14901	3.5	.01	.59	.8
FLOAT-1.40	82.1	89.8	14714	4.7	.05	.59	.8
FLOAT-1.60	87.7	95.3	14621	5.3	.13	.66	.9
TOTAL	100.0	100.0	13454	12.8	.20	.69	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.3	72.0	14963	3.1	.04	.55	.7
FLOAT-1.40	81.8	90.5	14777	4.3	.08	.58	.8
FLOAT-1.60	87.2	95.3	14606	5.4	.16	.66	.9
TOTAL	100.0	100.0	13361	13.4	.24	.70	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.9	70.2	15041	2.6	.04	.63	.8
FLOAT-1.40	81.7	89.9	14839	3.9	.08	.66	.9
FLOAT-1.60	88.4	95.8	14621	5.3	.13	.70	1.0
TOTAL	100.0	100.0	13486	12.6	.22	.74	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: VIRGINIA
COUNTY: RUSSELL

COALBED: JAWBONE
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.2	26.8	14588	3.6	.07	.70	1.0
FLOAT-1.40	61.1	71.7	14180	6.3	.06	.63	.9
FLOAT-1.60	84.2	94.6	13576	10.3	.06	.58	.9
TOTAL	100.0	100.0	12080	20.2	.09	.54	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.5	38.9	14513	4.1	.08	.54	.7
FLOAT-1.40	63.0	74.0	14241	5.9	.08	.59	.8
FLOAT-1.60	83.3	93.9	13666	9.7	.08	.57	.8
TOTAL	100.0	100.0	12125	19.9	.12	.54	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.9	29.8	14633	3.3	.08	.70	1.0
FLOAT-1.40	61.1	71.4	14286	5.6	.05	.64	.9
FLOAT-1.60	83.0	93.3	13742	9.2	.05	.62	.9
TOTAL	100.0	100.0	12231	19.2	.09	.60	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: VIRGINIA
COUNTY: RUSSELL

COALBED: TILLER
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.2	67.5	14999	2.8	.01	.49	.7
FLOAT-1.40	88.9	92.5	14844	3.8	.01	.48	.6
FLOAT-1.60	95.2	98.0	14689	4.8	.01	.48	.7
TOTAL	100.0	100.0	14271	7.5	.01	.47	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	70.0	73.6	15015	2.7	.01	.49	.7
FLOAT-1.40	87.9	91.6	14891	3.5	.01	.48	.6
FLOAT-1.60	94.3	97.4	14751	4.4	.01	.48	.7
TOTAL	100.0	100.0	14287	7.4	.01	.47	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.6	72.0	15076	2.3	.01	.52	.7
FLOAT-1.40	80.0	84.5	14968	3.0	.01	.52	.7
FLOAT-1.60	91.2	95.5	14829	3.9	.01	.51	.7
TOTAL	100.0	100.0	14163	8.2	.02	.50	.7

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: WEST VIRGINIA
COUNTY: MONONGALIA

COALBED: WAYNESBURG
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	4.7	5.3	14194	4.1	.20	.92	1.3
FLOAT-1.40	71.4	75.5	13218	10.7	.50	1.21	1.8
FLOAT-1.60	95.2	97.1	12744	13.9	.55	1.24	1.9
TOTAL	100.0	100.0	12493	15.6	.60	1.27	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.5	12.0	14239	3.8	.21	.98	1.4
FLOAT-1.40	69.8	74.6	13351	9.8	.49	1.24	1.9
FLOAT-1.60	93.6	96.3	12848	13.2	.54	1.26	2.0
TOTAL	100.0	100.0	12493	15.6	.63	1.33	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.6	23.6	14342	3.1	.08	.92	1.3
FLOAT-1.40	67.6	73.4	13603	8.1	.29	1.06	1.6
FLOAT-1.60	91.3	94.8	12996	12.2	.44	1.08	1.7
TOTAL	100.0	100.0	12523	15.4	.64	1.27	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MONONGALIA

COALBED: SEWICKLEY
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.7	22.8	14362	4.4	.50	2.56	3.6
FLOAT-1.40	74.7	79.3	13845	7.9	1.20	3.07	4.4
FLOAT-1.60	92.9	95.9	13476	10.4	1.78	3.56	5.3
TOTAL	100.0	100.0	13047	13.3	2.84	4.53	6.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.4	34.1	14421	4.0	.34	2.35	3.3
FLOAT-1.40	72.9	79.3	13978	7.0	.82	2.78	4.0
FLOAT-1.60	85.7	91.2	13682	9.0	1.26	3.16	4.6
TOTAL	100.0	100.0	12855	14.6	3.05	4.76	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	40.9	45.5	14495	3.5	.25	2.20	3.0
FLOAT-1.40	75.5	81.3	14037	6.6	.63	2.50	3.6
FLOAT-1.60	89.2	93.7	13697	8.9	1.03	2.63	3.8
TOTAL	100.0	100.0	13033	13.4	2.88	4.41	6.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: BROOKE

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	15.3	22.6	13908	3.3	.53	2.44	3.5
FLOAT-1.40	50.0	71.4	13457	6.4	1.86	3.82	5.7
FLOAT-1.60	65.6	90.6	13020	9.4	2.63	4.53	7.0
TOTAL	100.0	100.0	9426	34.1	2.69	4.04	8.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.2	34.3	13835	3.8	.48	2.49	3.6
FLOAT-1.40	49.2	71.0	13501	6.1	1.40	3.40	5.0
FLOAT-1.60	63.6	89.0	13[illegible]93	8.9	2.31	4.23	6.5
TOTAL	100.0	100.0	9353	34.6	2.63	4.01	8.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	14.8	21.6	13952	3.0	.27	2.32	3.3
FLOAT-1.40	44.1	62.8	13588	5.5	.93	2.95	4.3
FLOAT-1.60	61.1	84.0	13122	8.7	1.63	3.60	5.5
TOTAL	100.0	100.0	9542	33.3	2.62	4.02	8.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: HARRISON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.0	31.6	14347	4.0	.48	1.86	2.6
FLOAT-1.40	85.4	87.8	14001	6.3	1.54	2.87	4.1
FLOAT-1.60	97.1	98.4	13806	7.6	1.98	3.30	4.8
TOTAL	100.0	100.0	13626	8.8	2.48	3.78	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.0	36.1	14377	3.8	.31	1.65	2.3
FLOAT-1.40	84.9	87.8	14001	6.3	1.31	2.51	3.6
FLOAT-1.60	94.3	96.3	13821	7.5	1.67	3.03	4.4
TOTAL	100.0	100.0	13536	9.4	2.70	3.85	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.5	67.4	14377	3.8	.31	1.56	2.2
FLOAT-1.40	82.8	87.0	14242	4.7	.41	1.63	2.3
FLOAT-1.60	91.7	95.3	14076	5.8	.77	2.05	2.9
TOTAL	100.0	100.0	13551	9.3	2.89	3.96	5.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: HARRISON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.0	39.2	14243	4.2	.42	2.93	4.1
FLOAT-1.40	83.2	86.6	14000	5.9	1.00	3.44	4.9
FLOAT-1.60	92.3	95.1	13857	6.9	1.43	3.87	5.6
TOTAL	100.0	100.0	13443	9.8	2.76	5.13	7.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.2	31.8	14271	4.0	.41	2.99	4.2
FLOAT-1.40	86.1	89.1	14014	5.8	.88	3.41	4.9
FLOAT-1.60	93.3	95.8	13900	6.6	1.32	3.81	5.5
TOTAL	100.0	100.0	13543	9.1	2.64	5.04	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.4	61.8	14314	3.7	.35	2.79	3.9
FLOAT-1.40	85.3	87.7	13914	6.5	.91	3.33	4.8
FLOAT-1.60	94.1	96.4	13857	6.9	1.24	3.57	5.2
TOTAL	100.0	100.0	13529	9.2	2.53	4.78	7.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: HARRISON

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.1	37.9	14178	4.3	.72	2.31	3.3
FLOAT-1.40	83.4	87.7	13824	6.7	1.61	3.10	4.5
FLOAT-1.60	91.1	94.9	13691	7.6	2.04	3.52	5.1
TOTAL	100.0	100.0	13144	11.3	4.53	6.13	9.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.5	38.5	14237	3.9	.35	2.00	2.8
FLOAT-1.40	79.1	83.7	13897	6.2	1.20	2.78	4.0
FLOAT-1.60	87.1	91.3	13764	7.1	1.68	3.26	4.7
TOTAL	100.0	100.0	13129	11.4	4.91	6.54	10.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.3	57.1	14296	3.5	.30	2.00	2.8
FLOAT-1.40	79.3	85.3	14075	5.0	.63	2.20	3.1
FLOAT-1.60	87.6	93.4	13957	5.8	.98	2.54	3.6
TOTAL	100.0	100.0	13085	11.7	4.69	6.32	9.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MARION

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.0	58.8	14062	6.2	.49	1.84	2.6
FLOAT-1.40	86.3	91.5	13943	7.0	.89	2.21	3.2
FLOAT-1.60	92.8	97.2	13778	8.1	1.09	2.50	3.6
FLOAT-1.90	94.4	98.5	13718	8.5	1.21	2.61	3.8
TOTAL	100.0	100.0	13148	12.3	2.03	3.36	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.4	52.5	14452	3.6	.20	1.72	2.4
FLOAT-1.40	85.6	90.7	13823	7.8	.95	2.44	3.5
FLOAT-1.60	92.7	96.9	13628	9.1	1.38	2.82	4.1
FLOAT-1.90	94.6	98.4	13568	9.5	1.52	2.95	4.3
TOTAL	100.0	100.0	13043	13.0	2.21	3.56	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.3	55.2	14347	4.3	.24	1.69	2.4
FLOAT-1.40	84.4	90.9	14077	6.1	.47	1.95	2.8
FLOAT-1.60	90.1	96.0	13928	7.1	.69	2.15	3.1
FLOAT-1.90	92.4	97.6	13808	7.9	.88	2.32	3.4
TOTAL	100.0	100.0	13073	12.8	2.00	3.44	5.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

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STATE:     WEST VIRGINIA                                        COALBED: PITTSBURGH
COUNTY:    MARION                                               RAW COAL MOISTURE:   .9 %
                                         CUMULATIVE WASHABILITY DATA

                                     SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT              RECOVERY,%       BTU/LB      ASH,%        SULFUR,%           LB SO2/M BTU
                   WEIGHT    BTU                            PYRITIC    TOTAL
FLOAT-1.30          66.9     68.7      14332       4.2         .36      2.09            2.9
FLOAT-1.40          93.5     94.7      14140       5.5         .72      2.41            3.4
FLOAT-1.60          98.5     98.9      14022       6.3         .91      2.58            3.7
TOTAL              100.0    100.0      13963       6.7        1.01      2.68            3.8

EPA STANDARD       *****    *****      *****     *****       *****     *****            1.20

                                     SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT              RECOVERY,%       BTU/LB      ASH,%        SULFUR,%           LB SO2/M BTU
                   WEIGHT    BTU                            PYRITIC    TOTAL
FLOAT-1.30          70.5     72.4      14347       4.1         .35      2.01            2.8
FLOAT-1.40          93.2     94.6      14185       5.2         .50      2.25            3.2
FLOAT-1.60          97.8     98.5      14081       5.9         .67      2.41            3.4
TOTAL              100.0    100.0      13978       6.6         .90      2.63            3.8

EPA STANDARD       *****    *****      *****     *****       *****     *****            1.20

                                     SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT              RECOVERY,%       BTU/LB      ASH,%        SULFUR,%           LB SO2/M BTU
                   WEIGHT    BTU                            PYRITIC    TOTAL
FLOAT-1.30          70.5     72.8      14435       3.5         .16      1.95            2.7
FLOAT-1.40          92.3     94.1      14244       4.8         .32      2.14            3.0
FLOAT-1.60          96.7     97.9      14155       5.4         .53      2.28            3.2
TOTAL              100.0    100.0      13978       6.6        1.01      2.74            3.9

EPA STANDARD       *****    *****      *****     *****       *****     *****            1.20

STATE:     WEST VIRGINIA                                        COALBED: PITTSBURGH
COUNTY:    MARION                                               RAW COAL MOISTURE:   .9 %
                                         CUMULATIVE WASHABILITY DATA

                                     SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT              RECOVERY,%       BTU/LB      ASH,%        SULFUR,%           LB SO2/M BTU
                   WEIGHT    BTU                            PYRITIC    TOTAL
FLOAT-1.30          64.7     69.7      14487       4.1         .40      1.93            2.7
FLOAT-1.40          86.2     91.6      14292       5.4         .55      2.10            2.9
FLOAT-1.60          90.2     95.1      14187       6.1         .65      2.19            3.1
TOTAL              100.0    100.0      13453      11.0        2.44      3.90            5.8

EPA STANDARD       *****    *****      *****     *****       *****     *****            1.20

                                     SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT              RECOVERY,%       BTU/LB      ASH,%        SULFUR,%           LB SO2/M BTU
                   WEIGHT    BTU                            PYRITIC    TOTAL
FLOAT-1.30          66.4     71.4      14457       4.3         .55      2.04            2.8
FLOAT-1.40          86.7     92.1      14292       5.4         .65      2.10            2.9
FLOAT-1.60          90.6     95.6      14202       6.0         .74      2.17            3.1
TOTAL              100.0    100.0      13453      11.0        2.39      3.80            5.6

EPA STANDARD       *****    *****      *****     *****       *****     *****            1.20

                                     SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT              RECOVERY,%       BTU/LB      ASH,%        SULFUR,%           LB SO2/M BTU
                   WEIGHT    BTU                            PYRITIC    TOTAL
FLOAT-1.30          65.1     70.2      14502       4.0         .39      1.90            2.6
FLOAT-1.40          86.8     92.9      14397       4.7         .47      1.97            2.7
FLOAT-1.60          91.0     96.2      14217       5.9         .55      2.15            3.0
TOTAL              100.0    100.0      13453      11.0        2.16      3.69            5.5

EPA STANDARD       *****    *****      *****     *****       *****     *****            1.20
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STATE: WEST VIRGINIA
COUNTY: MARION

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.2	64.3	14433	4.5	.34	1.55	2.1
FLOAT-1.40	87.8	92.6	14251	5.7	.54	1.79	2.5
FLOAT-1.60	92.7	97.0	14130	6.5	.66	1.90	2.7
FLOAT-1.90	94.9	98.5	14025	7.2	.72	1.95	2.8
TOTAL	100.0	100.0	13511	10.6	1.17	2.35	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.2	68.9	14539	3.8	.24	1.48	2.0
FLOAT-1.40	88.1	93.3	14357	5.0	.42	1.67	2.3
FLOAT-1.60	92.3	97.0	14251	5.7	.53	1.78	2.5
FLOAT-1.90	94.3	98.4	14146	6.4	.60	1.84	2.6
TOTAL	100.0	100.0	13556	10.3	1.17	2.36	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.6	72.1	14644	3.1	.16	1.40	1.9
FLOAT-1.40	87.1	93.2	14478	4.2	.26	1.50	2.1
FLOAT-1.60	90.8	96.5	14372	4.9	.32	1.56	2.2
FLOAT-1.90	92.6	97.8	14282	5.5	.39	1.62	2.3
TOTAL	100.0	100.0	13526	10.5	1.22	2.40	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MARSHALL

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.9	31.9	14236	4.0	.75	2.46	3.5
FLOAT-1.40	77.2	83.0	13865	6.4	1.65	3.37	4.9
FLOAT-1.60	89.7	94.5	13587	8.2	2.11	3.75	5.5
TOTAL	100.0	100.0	12892	12.7	2.33	3.84	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.3	36.9	14298	3.6	.55	2.34	3.3
FLOAT-1.40	76.4	82.5	13943	5.9	1.38	3.20	4.6
FLOAT-1.60	89.1	94.3	13665	7.7	1.95	3.73	5.5
TOTAL	100.0	100.0	12908	12.6	2.39	4.05	6.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.0	50.2	14360	3.2	.42	2.24	3.1
FLOAT-1.40	77.5	84.3	13989	5.6	.85	2.87	4.1
FLOAT-1.60	88.5	94.2	13696	7.5	1.54	3.36	4.9
TOTAL	100.0	100.0	12861	12.9	2.40	4.13	6.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: HARSHALL

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.0	48.9	14279	3.2	.36	3.56	5.0
FLOAT-1.40	81.4	84.9	14015	5.0	1.14	4.20	6.0
FLOAT-1.60	94.6	96.9	13752	6.8	1.85	4.82	7.0
TOTAL	100.0	100.0	13431	9.0	2.06	4.94	7.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.7	53.8	14235	3.5	.38	3.56	5.0
FLOAT-1.40	83.3	86.9	14001	5.1	.95	4.03	5.8
FLOAT-1.60	93.3	96.0	13811	6.4	1.52	4.51	6.5
TOTAL	100.0	100.0	13416	9.1	1.97	4.84	7.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.8	53.2	14322	2.9	.36	3.52	4.9
FLOAT-1.40	84.3	88.5	14088	4.5	.77	3.81	5.4
FLOAT-1.60	93.1	96.7	13928	5.6	1.27	4.31	6.2
TOTAL	100.0	100.0	13416	9.1	1.98	4.90	7.3
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MONONGALIA

COALBED: PITTSBURGH
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.5	53.7	14358	4.8	.31	1.23	1.7
FLOAT-1.40	92.3	93.9	14014	7.1	.57	1.46	2.1
FLOAT-1.60	97.1	98.1	13909	7.8	.65	1.54	2.2
TOTAL	100.0	100.0	13774	8.7	.91	1.79	2.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.3	60.9	14283	5.3	.31	1.17	1.6
FLOAT-1.40	91.2	93.5	14014	7.1	.48	1.33	1.9
FLOAT-1.60	96.4	98.0	13894	7.9	.58	1.42	2.0
TOTAL	100.0	100.0	13669	9.4	.98	1.83	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	59.7	63.1	14523	3.7	.09	1.07	1.5
FLOAT-1.40	90.0	92.6	14134	6.3	.21	1.14	1.6
FLOAT-1.60	96.0	97.8	13999	7.2	.24	1.25	1.8
TOTAL	100.0	100.0	13744	8.9	.87	1.87	2.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MONONGALIA

COALBED: PITTSBURGH
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.3	59.7	14450	4.8	.42	1.62	2.2
FLOAT-1.40	91.3	93.3	14179	6.6	.71	1.90	2.7
FLOAT-1.60	96.7	98.0	14059	7.4	.87	2.05	2.9
TOTAL	100.0	100.0	13878	8.6	1.30	2.46	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.8	66.6	14495	4.5	.23	1.52	2.1
FLOAT-1.40	90.6	93.0	14239	6.2	.51	1.80	2.5
FLOAT-1.60	96.0	97.7	14119	7.0	.67	1.94	2.7
TOTAL	100.0	100.0	13878	8.6	1.21	2.44	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.3	64.5	14616	3.7	.19	1.44	2.0
FLOAT-1.40	89.2	91.9	14315	5.7	.38	1.62	2.3
FLOAT-1.60	95.5	97.1	14119	7.0	.60	1.81	2.6
TOTAL	100.0	100.0	13893	8.5	1.22	2.41	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MONONGALIA

COALBED: PITTSBURGH
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	56.8	60.4	14413	5.1	.43	2.60	3.6
FLOAT-1.40	87.6	91.1	14109	7.1	.74	2.87	4.1
FLOAT-1.60	94.6	97.4	13956	8.1	.97	3.08	4.4
TOTAL	100.0	100.0	13560	10.7	1.61	3.71	5.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.9	61.9	14474	4.7	.35	2.65	3.7
FLOAT-1.40	86.3	90.6	14200	6.5	.60	2.81	4.0
FLOAT-1.60	93.3	96.8	14033	7.6	.83	3.02	4.3
TOTAL	100.0	100.0	13530	10.9	1.68	3.87	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	61.5	65.9	14520	4.4	.24	2.49	3.4
FLOAT-1.40	86.0	90.3	14231	6.3	.35	2.59	3.6
FLOAT-1.60	93.1	96.7	14078	7.3	.57	2.76	3.9
TOTAL	100.0	100.0	13560	10.7	1.44	3.65	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MONONGALIA

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.8	69.3	14433	4.6	.44	1.61	2.2
FLOAT-1.40	88.5	91.9	14236	5.9	.69	1.84	2.6
FLOAT-1.60	92.7	95.5	14115	6.7	.80	1.94	2.7
FLOAT-1.90	95.6	97.6	13994	7.5	.87	2.00	2.9
TOTAL	100.0	100.0	13707	9.4	1.20	2.30	3.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	68.5	72.7	14478	4.3	.49	1.73	2.4
FLOAT-1.40	86.4	90.7	14327	5.3	.73	1.92	2.7
FLOAT-1.60	90.3	94.1	14221	6.0	.85	2.02	2.8
FLOAT-1.90	94.2	96.9	14040	7.2	.93	2.08	3.0
TOTAL	100.0	100.0	13646	9.8	1.36	2.47	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.9	59.5	14554	3.8	.41	1.46	2.0
FLOAT-1.40	87.6	91.7	14312	5.4	.63	1.63	2.3
FLOAT-1.60	93.8	97.1	14161	6.4	.81	1.82	2.6
FLOAT-1.90	95.6	98.4	14070	7.0	.90	1.90	2.7
TOTAL	100.0	100.0	13676	9.6	1.29	2.48	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: OHIO

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.8	46.4	14191	3.5	.48	1.92	2.7
FLOAT-1.40	83.0	86.3	13932	5.3	1.22	2.67	3.8
FLOAT-1.60	94.0	96.2	13716	6.8	1.80	3.20	4.7
TOTAL	100.0	100.0	13400	9.0	2.09	3.43	5.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.0	55.0	14177	3.6	.48	1.97	2.8
FLOAT-1.40	85.0	88.5	13946	5.2	1.05	2.53	3.6
FLOAT-1.60	93.7	96.3	13774	6.4	1.55	2.98	4.3
TOTAL	100.0	100.0	13400	9.0	2.10	3.49	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	57.6	61.5	14263	3.0	.33	1.92	2.7
FLOAT-1.40	83.8	88.2	14061	4.4	.74	2.22	3.2
FLOAT-1.60	92.4	96.0	13875	5.7	1.27	2.66	3.8
TOTAL	100.0	100.0	13357	9.3	2.24	3.60	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: OHIO

COALBED: PITTSBURGH
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.9	42.7	14175	3.6	.58	1.99	2.8
FLOAT-1.40	84.0	88.1	13882	5.6	1.25	2.68	3.9
FLOAT-1.60	91.3	94.9	13765	6.4	1.62	3.06	4.4
TOTAL	100.0	100.0	13238	10.0	2.38	3.78	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.1	49.7	14205	3.4	.39	1.89	2.7
FLOAT-1.40	82.2	86.9	13941	5.2	.95	2.48	3.6
FLOAT-1.60	90.3	94.4	13780	6.3	1.37	2.90	4.2
TOTAL	100.0	100.0	13180	10.4	2.24	3.74	5.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.9	52.2	14293	2.8	.24	1.77	2.5
FLOAT-1.40	78.1	83.6	14029	4.6	.71	2.17	3.1
FLOAT-1.60	87.8	92.7	13839	5.9	1.10	2.59	3.7
TOTAL	100.0	100.0	13106	10.9	2.50	3.96	6.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: GRANT

COALBED: BAKERSTOWN
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	16.3	22.2	14620	3.5	.18	.78	1.1
FLOAT-1.40	43.6	57.2	14090	7.0	.47	1.06	1.5
FLOAT-1.60	63.1	78.1	13287	12.3	.78	1.36	2.0
FLOAT-1.90	81.3	92.5	12226	19.3	1.12	1.68	2.7
TOTAL	100.0	100.0	10741	29.1	2.37	3.01	5.6
EPA STANDARD	25.7	34.5	14459	4.5	.27	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.8	26.8	14635	3.4	.16	.78	1.1
FLOAT-1.40	46.8	61.1	14135	6.7	.29	.85	1.2
FLOAT-1.60	65.2	80.8	13423	11.4	.41	.95	1.4
FLOAT-1.90	80.2	92.5	12499	17.5	.55	1.05	1.7
TOTAL	100.0	100.0	10832	28.5	2.38	3.03	5.6
EPA STANDARD	46.4	60.6	14145	6.6	.29	.85	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	22.9	30.6	14650	3.3	.20	.73	1.0
FLOAT-1.40	47.6	61.8	14226	6.1	.28	.76	1.1
FLOAT-1.60	68.2	83.6	13423	11.4	.41	.86	1.3
FLOAT-1.90	80.5	93.0	12650	16.5	.50	.92	1.5
TOTAL	100.0	100.0	10954	27.7	2.35	2.99	5.5
EPA STANDARD	60.3	75.3	13730	9.9	.38	.82	1.20

STATE: WEST VIRGINIA
COUNTY: GRANT

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	7.3	10.8	14584	2.8	.13	.83	1.1
FLOAT-1.40	42.0	58.6	13744	8.4	.49	1.19	1.7
FLOAT-1.60	61.3	82.9	13189	12.1	.80	1.54	2.3
FLOAT-1.90	72.2	91.5	12468	16.9	.96	1.68	2.7
TOTAL	100.0	100.0	9843	34.4	1.81	2.42	4.9
EPA STANDARD	11.6	16.9	14496	3.5	.17	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	11.2	16.8	14584	2.8	.12	.81	1.1
FLOAT-1.40	42.8	61.3	13909	7.3	.39	1.09	1.6
FLOAT-1.60	61.1	83.5	13264	11.6	.60	1.31	2.0
FLOAT-1.90	69.1	90.4	12694	15.4	.70	1.39	2.2
TOTAL	100.0	100.0	9708	35.3	1.75	2.36	4.9
EPA STANDARD	18.3	27.2	14452	3.7	.18	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.7	15.7	14599	2.7	.11	.79	1.1
FLOAT-1.40	37.8	53.3	14044	6.4	.30	1.00	1.4
FLOAT-1.60	60.8	80.0	13114	12.6	.60	1.27	1.9
FLOAT-1.90	73.2	91.6	12468	16.9	.73	1.38	2.2
TOTAL	100.0	100.0	9963	33.6	1.83	2.42	4.9
EPA STANDARD	21.1	30.4	14408	3.9	.17	.87	1.20

STATE: WEST VIRGINIA
COUNTY: PRESTON

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.1	30.1	14555	4.3	.21	.74	1.0
FLOAT-1.40	81.0	87.7	14205	6.6	.42	.95	1.3
FLOAT-1.60	89.2	95.2	14007	7.9	.54	1.08	1.5
FLOAT-1.90	92.5	97.5	13840	9.0	.65	1.19	1.7
TOTAL	100.0	100.0	13125	13.7	.98	1.53	2.3
EPA STANDARD	64.0	69.8	14355	5.7	.33	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	33.9	37.8	14646	3.7	.14	.66	.9
FLOAT-1.40	80.2	87.3	14296	6.0	.20	.72	1.0
FLOAT-1.60	88.7	95.2	14099	7.3	.29	.81	1.1
FLOAT-1.90	91.7	97.3	13947	8.3	.36	.88	1.3
TOTAL	100.0	100.0	13140	13.6	1.09	1.64	2.5
EPA STANDARD	90.5	96.6	14030	7.8	.32	.84	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	37.8	42.1	14661	3.6	.09	.61	.8
FLOAT-1.40	79.7	87.0	14357	5.6	.16	.67	.9
FLOAT-1.60	88.5	95.2	14144	7.0	.21	.72	1.0
FLOAT-1.90	92.1	97.7	13962	8.2	.26	.76	1.1
TOTAL	100.0	100.0	13156	13.5	.98	1.59	2.4
EPA STANDARD	97.1	97.9	13894	9.9	.34	.82	1.20

STATE: WEST VIRGINIA
COUNTY: PRESTON

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	38.5	46.8	14875	3.8	.33	.93	1.3
FLOAT-1.40	69.5	82.1	14473	6.4	.64	1.34	1.9
FLOAT-1.60	78.3	90.8	14195	8.2	.83	1.54	2.2
FLOAT-1.90	84.6	95.4	13808	10.7	1.06	1.80	2.6
TOTAL	100.0	100.0	12247	20.8	1.82	2.70	4.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.2	52.7	14968	3.2	.20	.80	1.1
FLOAT-1.40	68.7	81.8	14613	5.5	.34	.95	1.3
FLOAT-1.60	78.1	91.0	14303	7.5	.45	1.07	1.5
FLOAT-1.90	83.5	95.0	13963	9.7	.53	1.15	1.6
TOTAL	100.0	100.0	12278	20.6	1.83	2.76	4.5
EPA STANDARD	59.6	71.6	14767	4.5	.28	.89	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.2	55.0	14968	3.2	.13	.75	1.0
FLOAT-1.40	68.0	81.0	14659	5.2	.24	.84	1.1
FLOAT-1.60	78.1	91.1	14350	7.2	.31	.90	1.3
FLOAT-1.90	83.4	94.8	13994	9.5	.36	.95	1.4
TOTAL	100.0	100.0	12308	20.4	1.86	2.78	4.5
EPA STANDARD	73.8	87.0	14505	6.1	.28	.87	1.20

STATE: WEST VIRGINIA
COUNTY: PRESTON

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	55.7	62.5	14681	4.4	.18	.73	1.0
FLOAT-1.40	81.5	90.1	14466	5.8	.25	.80	1.1
FLOAT-1.60	88.8	96.1	14282	7.0	.32	.88	1.2
FLOAT-1.90	90.0	97.5	14174	7.7	.39	.96	1.4
TOTAL	100.0	100.0	13084	14.8	.89	1.43	2.2
EPA STANDARD	86.3	94.5	14329	6.7	.30	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	54.8	62.0	14819	3.5	.10	.05	.1
FLOAT-1.40	80.7	89.5	14528	5.4	.14	.69	.9
FLOAT-1.60	87.3	95.6	14343	6.6	.18	.73	1.0
FLOAT-1.90	89.7	97.4	14220	7.4	.23	.78	1.1
TOTAL	100.0	100.0	13099	14.7	.82	1.44	2.2
EPA STANDARD	92.5	99.4	14116	8.4	.29	.84	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	45.8	52.1	14896	3.0	.08	.63	.8
FLOAT-1.40	77.7	86.5	14589	5.0	.11	.65	.9
FLOAT-1.60	86.8	95.1	14359	6.5	.13	.67	.9
FLOAT-1.90	89.5	97.1	14205	7.5	.16	.68	1.0
TOTAL	100.0	100.0	13099	14.7	.90	1.51	2.3
EPA STANDARD	91.4	97.6	14006	8.8	.43	.79	1.20

STATE: WEST VIRGINIA
COUNTY: PRESTON

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	26.4	30.8	14513	4.4	.20	.80	1.1
FLOAT-1.40	71.4	80.7	14058	7.4	.46	1.10	1.6
FLOAT-1.60	85.7	92.7	13769	9.3	.72	1.39	2.0
FLOAT-1.90	88.9	96.4	13481	11.2	.89	1.57	2.3
TOTAL	100.0	100.0	12433	10.1	1.52	2.25	3.6
EPA STANDARD	38.6	44.5	14417	5.1	.25	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.7	38.6	14619	3.7	.14	.77	1.1
FLOAT-1.40	71.7	82.0	14149	6.8	.26	.89	1.3
FLOAT-1.60	82.5	92.3	13845	8.8	.37	.99	1.4
FLOAT-1.90	87.4	95.9	13572	10.6	.47	1.10	1.6
TOTAL	100.0	100.0	12372	10.5	1.43	2.24	3.6
EPA STANDARD	63.5	73.1	14282	6.0	.22	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.6	42.1	14634	3.6	.11	.75	1.0
FLOAT-1.40	72.1	82.7	14194	6.5	.20	.84	1.2
FLOAT-1.60	82.0	92.2	13906	8.4	.25	.88	1.3
FLOAT-1.90	86.5	95.4	13648	10.1	.32	.94	1.4
TOTAL	100.0	100.0	12372	10.5	1.61	2.44	3.9
EPA STANDARD	74.6	85.2	14137	6.9	.21	.85	1.20

STATE: WEST VIRGINIA
COUNTY: PRESTON

COALBED: UPPER FREEPORT
RAW COAL MOISTURE: .5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.9	36.5	14625	4.3	.24	1.08	1.5
FLOAT-1.40	63.9	75.6	14182	7.2	.46	1.27	1.8
FLOAT-1.60	79.3	90.5	13677	10.5	.59	1.38	2.0
FLOAT-1.90	86.3	95.8	13295	13.0	.73	1.52	2.3
TOTAL	100.0	100.0	11981	21.6	1.35	2.16	3.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	36.3	44.4	14640	4.2	.22	1.05	1.4
FLOAT-1.40	62.4	74.6	14304	6.4	.38	1.19	1.7
FLOAT-1.60	78.3	90.1	13769	9.9	.50	1.29	1.9
FLOAT-1.90	85.0	95.1	13387	12.4	.58	1.36	2.0
TOTAL	100.0	100.0	11965	21.7	1.29	2.11	3.5
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	35.1	42.9	14747	3.5	.16	.98	1.3
FLOAT-1.40	61.1	72.9	14396	5.8	.26	1.06	1.5
FLOAT-1.60	78.3	90.1	13891	9.1	.37	1.11	1.6
FLOAT-1.90	84.7	95.0	13540	11.4	.44	1.16	1.7
TOTAL	100.0	100.0	12072	21.0	1.42	2.26	3.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: BARBOUR

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.5	36.6	14737	3.1	.20	.82	1.1
FLOAT-1.40	62.1	69.6	14238	6.4	.48	1.11	1.6
FLOAT-1.60	83.1	89.3	13649	10.3	.74	1.30	1.9
TOTAL	100.0	100.0	12698	16.6	1.57	2.07	3.3
EPA STANDARD	37.8	43.7	14639	3.6	.25	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.7	45.1	14676	3.5	.12	.77	1.0
FLOAT-1.40	76.0	83.4	14178	6.8	.32	.90	1.3
FLOAT-1.60	85.3	91.8	13906	8.6	.42	.97	1.4
TOTAL	100.0	100.0	12925	15.1	1.46	1.99	3.1
EPA STANDARD	67.3	74.5	14335	5.8	.26	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.5	47.6	14752	3.0	.08	.73	1.0
FLOAT-1.40	70.0	77.9	14299	6.0	.18	.80	1.1
FLOAT-1.60	84.5	91.4	13891	8.7	.26	.85	1.2
TOTAL	100.0	100.0	12849	15.6	1.45	1.98	3.1
EPA STANDARD	81.9	89.2	13984	8.1	.24	.84	1.20

STATE: WEST VIRGINIA
COUNTY: BARBOUR

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.1	30.4	14738	3.3	.26	1.00	1.4
FLOAT-1.40	55.3	64.6	14220	6.7	1.04	1.70	2.4
FLOAT-1.60	79.6	88.3	13503	11.4	1.82	2.41	3.6
TOTAL	100.0	100.0	12177	20.1	2.83	3.28	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.7	41.5	14723	3.4	.19	.90	1.2
FLOAT-1.40	62.0	72.0	14281	6.3	.56	1.24	1.7
FLOAT-1.60	78.3	87.6	13762	9.7	1.07	1.73	2.5
TOTAL	100.0	100.0	12299	19.3	2.64	3.21	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.8	52.6	14784	3.0	.19	.92	1.2
FLOAT-1.40	63.4	74.2	14403	5.5	.33	1.09	1.5
FLOAT-1.60	81.3	92.0	13915	8.7	.63	1.40	2.0
TOTAL	100.0	100.0	12299	19.3	2.77	3.43	5.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: BARBOUR

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: .7 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.5	36.6	14737	3.1	.20	.82	1.1
FLOAT-1.40	62.1	69.6	14238	6.4	.48	1.11	1.6
FLOAT-1.60	83.1	89.3	13649	10.3	.74	1.30	1.9
TOTAL	100.0	100.0	12698	16.6	1.57	2.07	3.3
EPA STANDARD	37.8	43.7	14639	3.6	.25	.88	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.7	45.1	14676	3.5	.12	.77	1.0
FLOAT-1.40	76.0	83.4	14178	6.8	.32	.90	1.3
FLOAT-1.60	85.3	91.8	13906	8.6	.42	.97	1.4
TOTAL	100.0	100.0	12925	15.1	1.46	1.99	3.1
EPA STANDARD	67.3	74.5	14335	5.8	.26	.86	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.5	47.6	14752	3.0	.08	.73	1.0
FLOAT-1.40	70.0	77.9	14299	6.0	.18	.80	1.1
FLOAT-1.60	84.5	91.4	13891	8.7	.26	.85	1.2
TOTAL	100.0	100.0	12849	15.6	1.45	1.98	3.1
EPA STANDARD	81.9	89.2	13984	8.1	.24	.84	1.20

STATE: WEST VIRGINIA
COUNTY: BARBOUR

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: .8 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.1	30.4	14738	3.3	.26	1.00	1.4
FLOAT-1.40	55.3	64.6	14220	6.7	1.04	1.70	2.4
FLOAT-1.60	79.6	88.3	13503	11.4	1.82	2.41	3.6
TOTAL	100.0	100.0	12177	20.1	2.83	3.28	5.4
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	34.7	41.5	14723	3.4	.19	.90	1.2
FLOAT-1.40	62.0	72.0	14281	6.3	.56	1.24	1.7
FLOAT-1.60	78.3	87.6	13762	9.7	1.07	1.73	2.5
TOTAL	100.0	100.0	12299	19.3	2.64	3.21	5.2
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.8	52.6	14784	3.0	.19	.92	1.2
FLOAT-1.40	63.4	74.2	14403	5.5	.33	1.09	1.5
FLOAT-1.60	81.3	92.0	13915	8.7	.63	1.40	2.0
TOTAL	100.0	100.0	12299	19.3	2.77	3.43	5.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: NICHOLAS

COALBED: MIDDLE KITTANNING
RAW COAL MOISTURE: 1.8 %

BENCH: THIRD

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.8	31.1	14448	3.5	.14	.89	1.2
FLOAT-1.40	61.7	72.8	14162	5.4	.25	1.00	1.4
FLOAT-1.60	78.4	89.2	13652	8.8	.31	1.01	1.5
TOTAL	100.0	100.0	11999	19.8	.45	1.06	1.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.2	34.3	14523	3.0	.14	.93	1.3
FLOAT-1.40	63.4	75.7	14253	4.8	.26	1.03	1.4
FLOAT-1.60	75.7	87.8	13847	7.5	.32	1.04	1.5
TOTAL	100.0	100.0	11939	20.2	.47	1.08	1.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	27.4	33.2	14538	2.9	.14	.91	1.3
FLOAT-1.40	64.2	76.2	14268	4.7	.28	.98	1.4
FLOAT-1.60	75.9	88.0	13922	7.0	.35	1.02	1.5
TOTAL	100.0	100.0	12014	19.7	.50	1.06	1.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: BOONE

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 1.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	5.0	5.9	14467	3.2	.07	.77	1.1
FLOAT-1.40	78.7	91.6	14166	5.2	.10	.80	1.1
FLOAT-1.60	84.8	97.5	13986	6.4	.14	.82	1.2
TOTAL	100.0	100.0	12167	18.5	.19	.77	1.3
EPA STANDARD	89.0	99.6	13451	8.6	.16	.82	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.0	61.7	14512	2.9	.08	.74	1.0
FLOAT-1.40	75.5	89.7	14241	4.7	.12	.77	1.1
FLOAT-1.60	82.9	97.0	14031	6.1	.15	.80	1.1
TOTAL	100.0	100.0	11987	19.7	.19	.74	1.2
EPA STANDARD	93.0	98.9	12738	13.1	.18	.78	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.9	57.9	14557	2.6	.04	.77	1.1
FLOAT-1.40	73.7	87.1	14241	4.7	.10	.79	1.1
FLOAT-1.60	82.2	95.7	14031	6.1	.13	.81	1.2
TOTAL	100.0	100.0	12047	19.3	.20	.80	1.3
EPA STANDARD	89.1	96.9	13512	8.4	.16	.82	1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 2.5 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	44.3	47.8	14355	2.9	.08	.77	1.1
FLOAT-1.40	85.0	89.9	14073	4.8	.15	.82	1.2
FLOAT-1.60	93.0	97.0	13865	6.2	.18	.83	1.2
TOTAL	100.0	100.0	13299	10.0	.32	.95	1.4
EPA STANDARD	93.6	97.5	13858	6.3	.18	.83	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	46.2	49.9	14385	2.7	.07	.78	1.1
FLOAT-1.40	84.5	89.6	14117	4.5	.12	.80	1.1
FLOAT-1.60	92.7	96.8	13909	5.9	.15	.81	1.2
TOTAL	100.0	100.0	13314	9.9	.30	.92	1.4
EPA STANDARD	99.8	97.4	13812	7.2	.18	.82	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	39.9	43.2	14459	2.2	.07	.73	1.0
FLOAT-1.40	78.9	83.8	14192	4.0	.15	.78	1.1
FLOAT-1.60	92.7	96.4	13894	6.0	.18	.80	1.2
TOTAL	100.0	100.0	13359	9.6	.33	.92	1.4
EPA STANDARD	94.3	97.2	13779	7.5	.21	.82	1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 2.1 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	25.8	28.5	14103	4.2	.04	.71	1.0
FLOAT-1.40	75.0	81.0	13783	6.4	.07	.64	.9
FLOAT-1.60	93.5	96.7	13202	10.4	.06	.62	.9
TOTAL	100.0	100.0	12766	13.4	.07	.60	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.4	35.2	14277	3.0	.07	.70	1.0
FLOAT-1.40	73.5	80.2	13914	5.5	.05	.66	.9
FLOAT-1.60	89.5	94.3	13434	8.8	.08	.64	1.0
TOTAL	100.0	100.0	12751	13.5	.09	.61	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.6	35.6	14364	2.4	.09	.71	1.0
FLOAT-1.40	69.0	75.8	14030	4.7	.08	.63	.9
FLOAT-1.60	88.2	93.5	13536	8.1	.10	.60	.9
TOTAL	100.0	100.0	12766	13.4	.11	.56	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: LOWER KITTANNING
RAW COAL MOISTURE: 2.2 %
CUMULATIVE WASHABILITY DATA

BENCH: MIDDLE

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	10.5	11.6	14426	3.3	.05	.72	1.0
FLOAT-1.40	75.0	79.2	13817	7.0	.08	.75	1.1
FLOAT-1.60	97.1	98.6	13275	10.3	.14	.79	1.2
TOTAL	100.0	100.0	13078	11.5	.17	.81	1.2
EPA STANDARD	98.1	99.2	13235	10.6	.15	.79	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	20.5	22.6	14459	3.1	.07	.78	1.1
FLOAT-1.40	76.2	81.0	13916	6.4	.10	.79	1.1
FLOAT-1.60	95.3	97.7	13423	9.4	.15	.81	1.2
TOTAL	100.0	100.0	13094	11.4	.21	.84	1.3
EPA STANDARD	93.5	96.1	13470	9.2	.14	.81	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	17.5	19.3	14524	2.7	.08	.81	1.1
FLOAT-1.40	72.7	77.6	14048	5.6	.13	.80	1.1
FLOAT-1.60	94.0	97.1	13587	8.4	.14	.81	1.2
TOTAL	100.0	100.0	13160	11.0	.20	.85	1.3
EPA STANDARD	96.0	98.8	13554	8.7	.14	.81	1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: STOCKTON-LEWISTON
RAW COAL MOISTURE: 1.4 %
CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.4	28.4	14372	3.3	.05	.82	1.1
FLOAT-1.40	66.4	74.8	13897	6.5	.05	.79	1.1
FLOAT-1.60	86.1	92.6	13274	10.7	.05	.75	1.1
TOTAL	100.0	100.0	12339	17.0	.05	.71	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	29.8	34.8	14431	2.9	.06	.82	1.1
FLOAT-1.40	66.7	75.4	13986	5.9	.07	.78	1.1
FLOAT-1.60	83.3	90.7	13467	9.4	.08	.73	1.1
TOTAL	100.0	100.0	12369	16.8	.09	.69	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.6	35.9	14461	2.7	.06	.81	1.1
FLOAT-1.40	64.6	73.5	14030	5.6	.06	.78	1.1
FLOAT-1.60	83.5	91.3	13481	9.3	.07	.74	1.1
TOTAL	100.0	100.0	12324	17.1	.08	.69	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: WEST VIRGINIA
COUNTY: BOONE

COALBED: WINIFREDE
RAW COAL MOISTURE: 1.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	51.8	68.1	14641	2.3	.12	.78	1.1
FLOAT-1.40	65.7	85.3	14457	3.5	.20	.86	1.2
FLOAT-1.60	71.1	90.6	14181	5.3	.22	.86	1.2
TOTAL	100.0	100.0	11132	25.2	.21	.72	1.3
EPA STANDARD	68.0	87.6	14335	4.2	.21	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	52.6	71.0	14687	2.0	.13	.70	1.0
FLOAT-1.40	64.0	85.4	14534	3.0	.17	.77	1.1
FLOAT-1.60	69.1	90.6	14273	4.7	.19	.78	1.1
TOTAL	100.0	100.0	10887	26.8	.21	.65	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	50.0	67.2	14748	1.6	.12	.79	1.1
FLOAT-1.40	60.7	80.7	14595	2.6	.17	.83	1.1
FLOAT-1.60	68.1	88.5	14273	4.7	.20	.83	1.2
TOTAL	100.0	100.0	10979	26.2	.19	.65	1.2

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: WEST VIRGINIA
COUNTY: KANAWHA

COALBED: WINIFREDE
RAW COAL MOISTURE: 3.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.6	68.1	14643	1.9	.07	.69	.9
FLOAT-1.40	90.8	93.1	14462	3.1	.07	.68	.9
FLOAT-1.60	97.6	99.0	14296	4.2	.07	.67	.9
TOTAL	100.0	100.0	14099	5.5	.08	.66	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	69.7	72.5	14673	1.7	.07	.72	1.0
FLOAT-1.40	91.5	94.0	14507	2.8	.06	.69	1.0
FLOAT-1.60	97.0	98.8	14371	3.7	.06	.67	.9
TOTAL	100.0	100.0	14114	5.4	.07	.66	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	63.2	66.3	14719	1.4	.09	.69	.9
FLOAT-1.40	89.6	92.9	14552	2.5	.09	.67	.9
FLOAT-1.60	95.8	98.3	14401	3.5	.09	.66	.9
TOTAL	100.0	100.0	14039	5.9	.09	.64	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: WEST VIRGINIA
COUNTY: KANAWHA

COALBED: WINIFREDE
RAW COAL MOISTURE: 1.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	67.9	70.5	14517	2.2	.02	.63	.9
FLOAT-1.40	87.6	90.1	14369	3.2	.02	.62	.9
FLOAT-1.60	97.9	98.8	14104	5.0	.02	.59	.8
TOTAL	100.0	100.0	13971	5.9	.03	.60	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	62.3	65.3	14605	1.6	.02	.63	.9
FLOAT-1.40	87.2	90.0	14384	3.1	.02	.61	.8
FLOAT-1.60	97.5	98.6	14104	5.0	.02	.62	.9
TOTAL	100.0	100.0	13942	6.1	.03	.64	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.9	69.1	14561	1.9	.02	.62	.9
FLOAT-1.40	84.9	88.4	14458	2.6	.02	.61	.8
FLOAT-1.60	95.5	97.4	14163	4.6	.02	.60	.8
TOTAL	100.0	100.0	13883	6.5	.07	.64	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: WINIFREDE
RAW COAL MOISTURE: 3.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	28.4	32.6	14161	3.0	.03	.68	1.0
FLOAT-1.40	75.0	84.1	13854	5.1	.04	.66	1.0
FLOAT-1.60	87.1	95.9	13591	6.9	.03	.64	.9
TOTAL	100.0	100.0	12349	15.4	.04	.58	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	32.8	38.0	14220	2.6	.04	.70	1.0
FLOAT-1.40	72.7	82.5	13927	4.6	.04	.69	1.0
FLOAT-1.60	85.9	95.4	13635	6.6	.04	.66	1.0
TOTAL	100.0	100.0	12276	15.9	.04	.60	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	30.8	35.8	14278	2.2	.05	.71	1.0
FLOAT-1.40	67.5	77.1	14015	4.0	.04	.69	1.0
FLOAT-1.60	84.6	94.2	13664	6.4	.04	.65	1.0
TOTAL	100.0	100.0	12276	15.9	.05	.59	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: CHILTON
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	79.0	82.4	14877	2.1	.01	.74	1.0
FLOAT-1.40	89.8	93.0	14771	2.8	.01	.73	1.0
FLOAT-1.60	96.5	98.9	14604	3.9	.01	.71	1.0
TOTAL	100.0	100.0	14256	6.2	.01	.70	1.0

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	76.8	80.5	14907	1.9	.02	.66	.9
FLOAT-1.40	89.5	93.0	14786	2.7	.02	.65	.9
FLOAT-1.60	96.1	98.8	14619	3.8	.02	.64	.9
TOTAL	100.0	100.0	14225	6.4	.03	.64	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	31.7	33.6	14998	1.3	.01	.72	1.0
FLOAT-1.40	87.8	92.0	14831	2.4	.01	.65	.9
FLOAT-1.60	93.9	97.3	14665	3.5	.01	.65	.9
TOTAL	100.0	100.0	14150	6.9	.03	.65	.9

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: CEDAR GROVE
RAW COAL MOISTURE: 1.3 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	43.3	51.1	14589	3.5	.08	.86	1.2
FLOAT-1.40	78.6	90.5	14239	5.8	.17	.88	1.2
FLOAT-1.60	84.2	95.8	14071	6.9	.22	.92	1.3
TOTAL	100.0	100.0	12365	18.1	.32	.91	1.5
EPA STANDARD	59.5	69.3	14460	4.5	.12	.87	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	41.0	49.0	14681	2.9	.08	.86	1.2
FLOAT-1.40	76.9	89.8	14345	5.1	.13	.87	1.2
FLOAT-1.60	82.8	95.6	14193	6.1	.18	.91	1.3
TOTAL	100.0	100.0	12289	18.6	.35	.96	1.6
EPA STANDARD	68.3	80.0	14450	4.5	.12	.87	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	42.1	50.2	14757	2.4	.04	.85	1.2
FLOAT-1.40	73.1	85.1	14406	4.7	.09	.83	1.2
FLOAT-1.60	83.4	95.4	14163	6.3	.14	.86	1.2
TOTAL	100.0	100.0	12380	18.0	.35	.99	1.6
EPA STANDARD	81.0	93.0	14219	5.9	.08	.85	1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: CEDAR GROVE
RAW COAL MOISTURE: 1.6 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	48.1	50.7	14327	3.8	.14	1.30	1.8
FLOAT-1.40	87.1	90.3	14104	5.3	.17	1.32	1.9
FLOAT-1.60	94.8	97.0	13912	6.6	.24	1.42	2.0
TOTAL	100.0	100.0	13600	8.7	.70	1.91	2.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.4	52.5	14505	2.6	.13	1.35	1.9
FLOAT-1.40	86.2	89.7	14193	4.7	.17	1.33	1.9
FLOAT-1.60	94.2	96.8	14015	5.9	.23	1.40	2.0
TOTAL	100.0	100.0	13645	8.4	.67	1.88	2.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	49.1	52.5	14579	2.1	.09	1.19	1.6
FLOAT-1.40	84.0	88.0	14282	4.1	.15	1.23	1.7
FLOAT-1.60	93.2	96.2	14075	5.5	.22	1.32	1.9
TOTAL	100.0	100.0	13630	8.5	.78	1.91	2.8
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WEST VIRGINIA
COUNTY: MINGO

COALBED: NO. 2 GAS
RAW COAL MOISTURE: 1.9 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.2	78.3	14717	1.4	.13	.89	1.2
FLOAT-1.40	90.9	93.3	14508	2.8	.21	.92	1.3
FLOAT-1.60	98.6	99.3	14240	4.6	.32	1.04	1.5
TOTAL	100.0	100.0	14135	5.3	.41	1.12	1.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	75.6	78.6	14702	1.5	.12	.89	1.2
FLOAT-1.40	90.0	92.6	14538	2.6	.28	.99	1.4
FLOAT-1.60	97.6	98.6	14284	4.3	.36	1.08	1.5
TOTAL	100.0	100.0	14135	5.3	.42	1.13	1.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	69.3	72.3	14747	1.2	.07	.76	1.0
FLOAT-1.40	87.9	90.9	14612	2.1	.14	.91	1.2
FLOAT-1.60	96.2	97.9	14389	3.6	.23	.98	1.4
TOTAL	100.0	100.0	14135	5.3	.39	1.13	1.6
EPA STANDARD	84.3	87.5	14641	1.7	.11	.88	1.20

STATE: WEST VIRGINIA
COUNTY: LOGAN

COALBED: POWELLTON
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	64.6	74.6	14925	2.1	.02	.68	.9
FLOAT-1.40	78.4	89.7	14787	3.0	.07	.72	1.0
FLOAT-1.60	83.9	94.8	14604	4.2	.10	.75	1.0
TOTAL	100.0	100.0	12923	15.2	.17	.74	1.1

RAW COAL MEETS EPA EMISSION STANDARD OF 1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	66.4	76.3	14986	1.7	.01	.70	.9
FLOAT-1.40	79.6	90.6	14848	2.6	.04	.77	1.0
FLOAT-1.60	83.9	94.7	14726	3.4	.08	.79	1.1
TOTAL	100.0	100.0	13045	14.4	.16	.80	1.2
EPA STANDARD	97.5	99.1	13335	11.6	.16	.81	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	53.3	62.0	15047	1.3	.01	.69	.9
FLOAT-1.40	73.2	84.1	14863	2.5	.03	.76	1.0
FLOAT-1.60	83.8	94.5	14588	4.3	.07	.74	1.0
TOTAL	100.0	100.0	12938	15.1	.19	.79	1.2
EPA STANDARD	98.3	99.4	13107	8.6	.07	.83	1.20

STATE: WEST VIRGINIA
COUNTY: MCDOWELL

COALBED: LOWER WAR EAGLE
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.8	71.2	14974	2.8	.09	.72	1.0
FLOAT-1.40	86.5	92.3	14759	4.2	.17	.75	1.0
FLOAT-1.60	92.0	97.0	14590	5.3	.18	.78	1.1
TOTAL	100.0	100.0	13838	10.2	.73	1.28	1.8
EPA STANDARD	93.3	97.5	14464	7.6	.22	.86	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	65.8	71.7	15035	2.4	.12	.71	.9
FLOAT-1.40	85.1	91.5	14836	3.7	.15	.69	.9
FLOAT-1.60	90.9	96.6	14652	4.9	.19	.72	1.0
TOTAL	100.0	100.0	13792	10.5	.75	1.23	1.8
EPA STANDARD	93.4	97.5	14419	8.8	.35	.85	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	58.2	63.6	15112	1.9	.08	.70	.9
FLOAT-1.40	83.6	89.9	14867	3.5	.12	.72	1.0
FLOAT-1.60	91.5	96.7	14606	5.2	.20	.78	1.1
TOTAL	100.0	100.0	13823	10.3	.77	1.30	1.9
EPA STANDARD	99.7	97.2	14479	7.1	.30	.86	1.20

STATE: WEST VIRGINIA
COUNTY: WYOMING

COALBED: GILBERT
RAW COAL MOISTURE: 1.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	19.0	21.8	14925	3.0	.22	1.01	1.4
FLOAT-1.40	75.5	82.0	14144	8.1	.28	.98	1.4
FLOAT-1.60	89.0	94.4	13823	10.2	.36	1.03	1.5
TOTAL	100.0	100.0	13027	15.4	.69	1.29	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	24.1	27.8	14940	2.9	.25	.92	1.2
FLOAT-1.40	70.9	78.0	14236	7.5	.25	.95	1.3
FLOAT-1.60	87.1	93.3	13853	10.0	.30	.94	1.4
TOTAL	100.0	100.0	12935	16.0	.74	1.30	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	23.8	27.4	15017	2.4	.17	.97	1.3
FLOAT-1.40	67.4	74.1	14358	6.7	.22	.96	1.3
FLOAT-1.60	87.8	93.5	13899	9.7	.29	.98	1.4
TOTAL	100.0	100.0	13057	15.2	.73	1.36	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WYOMING
COUNTY: SWEETWATER

COALBED: ROCK SPRINGS NO. 3
RAW COAL MOISTURE: 8.4 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	82.0	86.7	12879	2.5	.09	.95	1.5
FLOAT-1.40	90.8	95.3	12775	3.3	.14	1.01	1.6
FLOAT-1.60	94.2	98.3	12710	3.8	.20	1.08	1.7
TOTAL	100.0	100.0	12176	7.9	.38	1.27	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	73.7	77.9	12905	2.3	.07	.86	1.3
FLOAT-1.40	86.8	91.2	12840	2.8	.09	.89	1.4
FLOAT-1.60	94.5	98.4	12723	3.7	.18	1.00	1.6
TOTAL	100.0	100.0	12215	7.6	.37	1.19	1.9
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	60.7	64.4	12944	2.0	.08	.82	1.3
FLOAT-1.40	84.8	89.5	12879	2.5	.07	.85	1.3
FLOAT-1.60	94.4	98.5	12736	3.6	.16	.98	1.5
TOTAL	100.0	100.0	12202	7.7	.41	1.22	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WYOMING
COUNTY: SWEETWATER

COALBED: ROCK SPRINGS NO. 8
RAW COAL MOISTURE: 12.0 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	82.9	84.0	12711	1.9	.18	.97	1.5
FLOAT-1.40	97.2	98.3	12680	2.1	.22	1.02	1.6
FLOAT-1.60	98.9	99.8	12649	2.3	.23	1.03	1.6
TOTAL	100.0	100.0	12540	3.0	.28	1.09	1.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	69.1	70.0	12773	1.5	.13	.84	1.3
FLOAT-1.40	92.4	93.4	12742	1.7	.16	.89	1.4
FLOAT-1.60	98.7	99.6	12711	1.9	.17	.91	1.4
TOTAL	100.0	100.0	12602	2.6	.25	.99	1.6
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	47.1	48.0	12773	1.5	.07	.83	1.3
FLOAT-1.40	93.4	95.1	12757	1.6	.10	.85	1.3
FLOAT-1.60	97.9	99.4	12711	1.9	.12	.87	1.4
TOTAL	100.0	100.0	12524	3.1	.32	1.07	1.7
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

STATE: WYOMING
COUNTY: SWEETWATER

COALBED: ROCK SPRINGS NO. 9
RAW COAL MOISTURE: 9.2 %

CUMULATIVE WASHABILITY DATA

SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	92.9	93.7	12831	1.6	.25	1.21	1.9
FLOAT-1.40	98.2	98.9	12815	1.7	.26	1.24	1.9
FLOAT-1.60	99.1	99.7	12800	1.8	.27	1.25	2.0
TOTAL	100.0	100.0	12722	2.3	.37	1.35	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	82.0	82.6	12846	1.5	.25	1.10	1.7
FLOAT-1.40	94.6	95.2	12831	1.6	.26	1.14	1.8
FLOAT-1.60	99.2	99.7	12815	1.7	.27	1.17	1.8
TOTAL	100.0	100.0	12753	2.1	.37	1.27	2.0
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT	RECOVERY,%		BTU/LB	ASH,%	SULFUR,%		LB SO2/M BTU
	WEIGHT	BTU			PYRITIC	TOTAL	
FLOAT-1.30	71.3	72.2	12877	1.3	.23	1.03	1.6
FLOAT-1.40	94.6	95.7	12877	1.3	.20	1.05	1.6
FLOAT-1.60	98.6	99.4	12831	1.6	.28	1.10	1.7
TOTAL	100.0	100.0	12722	2.3	.49	1.32	2.1
EPA STANDARD	*****	*****	*****	*****	*****	*****	1.20

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STATE:     WYOMING                                                  COALBED: ROCK SPRINGS NO. 11
COUNTY:    SWEETWATER                                               RAW COAL MOISTURE: 11.2 %
                                          CUMULATIVE WASHABILITY DATA

                                      SAMPLE CRUSHED TO PASS 1-1/2 INCHES

PRODUCT                 RECOVERY,%        BTU/LB       ASH,%        SULFUR,%            LB SO2/M BTU
                     WEIGHT    BTU                              PYRITIC    TOTAL
FLOAT-1.30            89.3     93.1       13088        2.1        .09       .86             1.3
FLOAT-1.40            93.2     97.0       13063        2.3        .10       .87             1.3
FLOAT-1.60            94.4     98.1       13038        2.5        .11       .89             1.4
TOTAL                100.0    100.0       12552        6.4        .20       .96             1.5

EPA STANDARD         *****    *****       *****      *****      *****     *****             1.20

                                      SAMPLE CRUSHED TO PASS 3/8 INCH

PRODUCT                 RECOVERY,%        BTU/LB       ASH,%        SULFUR,%            LB SO2/M BTU
                     WEIGHT    BTU                              PYRITIC    TOTAL
FLOAT-1.30            77.5     81.0       13138        1.7        .09       .85             1.3
FLOAT-1.40            92.2     96.2       13125        1.8        .10       .85             1.3
FLOAT-1.60            94.3     98.1       13088        2.1        .11       .86             1.3
TOTAL                100.0    100.0       12577        6.2        .23       .96             1.5

EPA STANDARD         *****    *****       *****      *****      *****     *****             1.20

                                      SAMPLE CRUSHED TO PASS 14 MESH

PRODUCT                 RECOVERY,%        BTU/LB       ASH,%        SULFUR,%            LB SO2/M BTU
                     WEIGHT    BTU                              PYRITIC    TOTAL
FLOAT-1.30            69.5     72.7       13125        1.8        .06       .80             1.2
FLOAT-1.40            91.1     95.3       13113        1.9        .07       .81             1.2
FLOAT-1.60            94.0     98.0       13075        2.2        .08       .82             1.3
TOTAL                100.0    100.0       12540        6.5        .22       .97             1.5

EPA STANDARD         *****    *****       *****      *****      *****     *****             1.20

   ** CARD MISSING OR OUT OF PLACE

      -0   37   695 6455  796   255 1  ROCKY MTN ASSOCIATED COAL     SWEETWATER           14

END-OF-FILE ENCOUNTERED, FILENAME -    SULEPA

OUTPUT FILE LINE LIMIT EXCEEDED

ERROR NUMBER   0083 DETECTED BY SYSERR  AT ADDRESS 000023
CALLED FROM SYSERR  AT ADDRESS 000120
CALLED FROM INPC=   AT ADDRESS 000135
CALLED FROM SULU    AT  LINE 110
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APPENDIX B.--A STATISTICAL EVALUATION OF THE COMPOSITED WASHABILITY DATA BY REGION AND COALBED[1] [2]

Region	Coalbed	Page
Northern Appalachian	Summary	267
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[1] All numbers in the tables are presented on a moisture-free basis unless otherwise noted. The raw coal moisture as presented in the tables is the moisture contained in the sample after being air dried at the coal preparation laboratory. The air dry loss is not included in the moisture determination.

[2] Data are included only for coalbeds where 10 or more samples were collected.

APPENDIX B.--A STATISTICAL EVALUATION OF THE COMPOSITED WASHABILITY DATA BY REGION AND COALBED[1,2]

```
                     NORTHERN APPALACHIAN REGION
NUMBER OF SAMPLES: 227
RAW COAL MOISTURE,PERCENT:  1.7
                SIGMA:      1.4

                             ASH, PERCENT                         PYRITIC SULFUR, PERCENT               TOTAL SULFUR, PERCENT
                       RAW:  15.1     SIGMA:   6.5           RAW:  2.01     SIGMA:   1.3          RAW:  3.01     SIGMA:   1.6

PRODUCT      NO OF        AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  REDUCTION SIGMA
             SAMPLES

.........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.................................

FLOAT-1.30    224           3.6     .8       73      12          .37     .3        78      18          1.41     .7       48      21
FLOAT-1.40    227           6.5    1.7       52      15          .80     .5        57      18          1.82    1.0       34      19
FLOAT-1.60    227           8.8    2.8       37      17         1.11     .7        42      18          2.12    1.2       26      17
TOTAL         227          15.2    6.6        0       0         2.00    1.3         0       0          3.00    1.7        0       0

...........................................................SAMPLE CRUSHED TO PASS 3/8 INCH..................................

FLOAT-1.30    224           3.3     .8       75      10          .30     .2        82      22          1.34     .8       50      23
FLOAT-1.40    227           5.9    1.7       57      14          .60     .5        67      24          1.62     .9       41      22
FLOAT-1.60    227           8.0    2.6       43      17          .86     .6        55      20          1.86    1.1       34      20
TOTAL         227          15.1    6.6        0       0         1.99    1.3         0       0          2.99    1.6        0       0

...........................................................SAMPLE CRUSHED TO PASS 14 MESH...................................

FLOAT-1.30    222           2.9     .9       78       9          .23     .2        86      12          1.28     .7       53      21
FLOAT-1.40    227           5.2    1.5       62      12          .43     .3        76      18          1.46     .9       46      22
FLOAT-1.60    227           7.6    2.4       46      14          .66     .5        65      17          1.66    1.0       41      20
TOTAL         227          15.1    6.4        0       0         2.02    1.3         0       0          3.03    1.7        0       0

                          BTU RECOVERY, PERCENT               BTU PER POUND                       POUNDS OF SO2/M BTU
                       RAW: 100.0     SIGMA:   0.0           RAW: 12693     SIGMA: 1076          RAW:   4.8     SIGMA:   2.7

PRODUCT      NO OF        AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA  %INCREASE SIGMA      AVERAGE SIGMA  %REDUCTION SIGMA
             SAMPLES

.........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.................................

FLOAT-1.30    224          37.5   22.3       63      22        14433    490        14      10           2.0    1.1       54      20
FLOAT-1.40    227          78.8   14.9       21      15        13978    523        11       9           2.6    1.5       40      18
FLOAT-1.60    227          93.0    5.2        7       5        13640    612         8       8           3.2    1.8       31      17
TOTAL         227         100.0    0.0        0       0        12686   1085         0       0           4.8    2.7        0       0

...........................................................SAMPLE CRUSHED TO PASS 3/8 INCH..................................

FLOAT-1.30    224          44.4   21.9       56      22        14475    488        15      10           1.9    1.1       56      21
FLOAT-1.40    227          80.0   13.1       20      13        14075    513        12       9           2.3    1.4       46      20
FLOAT-1.60    227          92.5    4.9        7       5        13766    592         9       9           2.7    1.7       39      19
TOTAL         227         100.0    0.0        0       0        12693   1082         0       0           4.8    2.7        0       0

...........................................................SAMPLE CRUSHED TO PASS 14 MESH...................................

FLOAT-1.30    222          43.3   19.2       57      19        14539    494        15      10           1.8    1.1       59      19
FLOAT-1.40    227          77.3   13.9       23      14        14173    505        12       9           2.1    1.3       52      20
FLOAT-1.60    227          92.1    5.3        8       5        13821    582         9       8           2.4    1.5       46      19
TOTAL         227         100.0    0.0        0       0        12700   1067         0       0           4.8    2.7        0       0
```

COALBED: SEWICKLEY
STATE: OHIO
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE,PERCENT: 2.4
SIGMA: .6

		ASH, PERCENT				PYRITIC SULFUR, PERCENT				TOTAL SULFUR, PERCENT			
		RAW: 14.9		SIGMA: 4.4		RAW: 2.42		SIGMA: .8		RAW: 4.45		SIGMA: 1.5	
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	10	4.4	.7	68	11	.43	.2	81	6	2.80	1.2	39	8
FLOAT-1.40	10	9.2	1.1	35	15	1.18	.3	49	9	3.40	1.3	24	6
FLOAT-1.60	10	12.1	2.5	17	8	1.68	.6	30	7	3.80	1.4	15	5
TOTAL	10	14.8	4.2	0	0	2.41	.8	0	0	4.45	1.6	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	10	4.5	1.5	69	6	.57	.5	77	12	2.93	1.3	36	9
FLOAT-1.40	10	8.8	2.3	39	12	1.05	.7	58	14	3.26	1.4	28	9
FLOAT-1.60	10	11.6	3.1	21	9	1.48	.7	40	11	3.59	1.5	21	8
TOTAL	10	15.0	4.6	0	0	2.44	.9	0	0	4.45	1.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	10	4.1	1.9	73	7	.38	.2	84	7	2.76	1.3	40	11
FLOAT-1.40	10	7.8	1.6	45	11	.71	.4	71	11	3.05	1.4	34	10
FLOAT-1.60	10	10.7	2.5	26	10	1.09	.6	55	14	3.25	1.4	29	11
TOTAL	10	14.9	4.7	0	0	2.41	.8	0	0	4.45	1.6	0	0

		BTU RECOVERY, PERCENT				BTU PER POUND				POUNDS OF SO2/M BTU			
		RAW: 100.0		SIGMA: 0.0		RAW: 12251		SIGMA: 751		RAW: 7.4		SIGMA: 2.8	
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	10	11.0	10.3	89	10	13748	191	12	6	4.1	1.8	46	7
FLOAT-1.40	10	73.9	17.1	26	17	13057	235	7	5	5.2	2.0	29	7
FLOAT-1.60	10	95.0	3.3	5	3	12647	478	3	3	6.1	2.4	18	6
TOTAL	10	100.0	0.0	0	0	12258	741	0	0	7.4	2.8	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	10	18.3	11.7	82	12	13725	346	12	5	4.3	2.0	43	7
FLOAT-1.40	10	75.8	10.8	24	11	13113	427	7	4	5.0	2.3	33	8
FLOAT-1.60	10	94.0	3.6	6	4	12717	571	4	3	5.7	2.5	24	8
TOTAL	10	100.0	0.0	0	0	12241	785	0	0	7.4	2.9	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	10	32.0	13.8	68	14	13792	419	13	5	4.0	1.9	47	9
FLOAT-1.40	10	74.3	10.8	26	11	13258	351	8	5	4.6	2.1	39	9
FLOAT-1.60	10	93.1	4.7	7	5	12845	491	5	4	5.1	2.3	32	10
TOTAL	10	100.0	0.0	0	0	12254	807	0	0	7.4	2.9	0	0

```
COALBED:SEWICKLEY                      SEWICKLEY                         SEWICKLEY                          SEWICKLEY
STATES: 2 MARYLAND                     10 OHIO                           2 PA. (BITUMINOUS)                 1 WEST VIRGINIA
NUMBER OF SAMPLES:   15
RAW COAL MOISTURE,PERCENT:  2.0
                  SIGMA:    .8

                              ASH, PERCENT                          PYRITIC SULFUR, PERCENT              TOTAL SULFUR, PERCENT
                         RAW:  16.3      SIGMA:    7.5           RAW:  2.09      SIGMA:   1.0         RAW:  3.78      SIGMA:   1.8

 PRODUCT      NO OF      AVERAGE SIGMA  REDUCTION SIGMA          AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA  REDUCTION SIGMA
              SAMPLES

..........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..................................

FLOAT-1.30     15            4.2    .8        70       11            .38     .2        82       7         2.35    1.2        38      10
FLOAT-1.40     15            8.6   1.6        41       18            .99     .5        54      13         2.84    1.4        25       7
FLOAT-1.60     15           11.2   2.6        24       19           1.40     .7        34       9         3.17    1.6        16       7
TOTAL          15           16.4   7.7         0        0           2.09    1.0         0       0         3.78    1.8         0       0

............................................................SAMPLE CRUSHED TO PASS 3/8 INCH...................................

FLOAT-1.30     15            4.3   1.3        71        9            .46     .4        80      12         2.42    1.3        36      12
FLOAT-1.40     15            8.3   2.3        44       15            .86     .6        61      14         2.72    1.4        28      10
FLOAT-1.60     15           10.7   3.1        28       18           1.21     .7        43      11         3.00    1.6        21       9
TOTAL          15           16.3   7.5         0        0           2.10    1.1         0       0         3.78    1.8         0       0

............................................................SAMPLE CRUSHED TO PASS 14 MESH.....................................

FLOAT-1.30     15            3.8   1.6        74        8            .31     .2        86       7         2.27    1.3        41      14
FLOAT-1.40     15            7.4   1.7        49       14            .60     .4        73      11         2.53    1.4        34      11
FLOAT-1.60     15           10.2   2.6        32       16            .91     .6        58      13         2.70    1.5        29      12
TOTAL          15           16.4   7.7         0        0           2.10    1.0         0       0         3.78    1.8         0       0

                           BTU RECOVERY, PERCENT                 BTU PER POUND                         POUNDS OF SO2/M BTU
                        RAW: 100.0      SIGMA:    0.0         RAW: 12230      SIGMA: 1219          RAW:    6.2      SIGMA:    3.0

 PRODUCT      NO OF      AVERAGE SIGMA  REDUCTION SIGMA          AVERAGE SIGMA  %INCREASE SIGMA       AVERAGE SIGMA  %REDUCTION SIGMA
              SAMPLES

..........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..................................

FLOAT-1.30     15           16.1  12.2        84       12          13990    463        16      12          3.4    1.8        46      10
FLOAT-1.40     15           76.8  14.6        23       15          13352    568        10      11          4.3    2.2        31       8
FLOAT-1.60     15           94.6   3.5         5        4          12982    696         7      11          5.0    2.6        21       8
TOTAL          15          100.0   0.0         0        0          12223   1243         0       0          6.2    3.1         0       0

............................................................SAMPLE CRUSHED TO PASS 3/8 INCH...................................

FLOAT-1.30     15           23.7  13.8        76       14          13980    533        15      12          3.5    2.0        44      11
FLOAT-1.40     15           78.1   9.9        22       10          13398    644        10      10          4.1    2.3        34      10
FLOAT-1.60     15           93.5   4.3         6        4          13049    759         7      10          4.7    2.6        26       9
TOTAL          15          100.0   0.0         0        0          12243   1245         0       0          6.2    3.1         0       0

............................................................SAMPLE CRUSHED TO PASS 14 MESH.....................................

FLOAT-1.30     15           34.7  15.2        65       15          14043    559        16      12          3.3    1.9        49      13
FLOAT-1.40     15           76.0  10.6        24       11          13523    579        12      11          3.8    2.2        40      11
FLOAT-1.60     15           92.7   4.7         7        5          13131    692         8      10          4.2    2.4        34      11
TOTAL          15          100.0   0.0         0        0          12223   1256         0       0          6.2    3.1         0       0
```

```
COALBED:   PITTSBURGH
STATE:     OHIO
NUMBER OF SAMPLES:   18
RAW COAL MOISTURE,PERCENT:  2.2
                    SIGMA:  1.1

                             ASH, PERCENT                         PYRITIC SULFUR, PERCENT                  TOTAL SULFUR, PERCENT
                         RAW:  15.9     SIGMA:   7.6            RAW:  2.69     SIGMA:    .8             RAW:  4.19     SIGMA:    .9

 PRODUCT      NO OF       AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  REDUCTION SIGMA
              SAMPLES

..........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.........................................

FLOAT-1.30     18            4.2    .5       70      8           .60    .2       74      6           2.34    .5       44      7
FLOAT-1.40     18            6.9    .9       51     14          1.50    .3       43      9           3.17    .6       24      7
FLOAT-1.60     18            8.6   1.7       40     15          1.95    .4       26      9           3.61    .7       13      7
TOTAL          18           16.0   7.7        0      0          2.69    .8        0      0           4.20   1.0        0      0

...........................................................SAMPLE CRUSHED TO PASS 3/8 INCH............................................

FLOAT-1.30     18            4.0    .5       71      8           .64    .2       75      6           2.31    .5       44      6
FLOAT-1.40     18            6.4   1.0       54     13          1.29    .4       50      8           2.96    .6       28      6
FLOAT-1.60     18            7.9   1.4       44     14          1.70    .4       35      9           3.35    .7       19      7
TOTAL          18           15.9   7.7        0      0          2.63    .7        0      0           4.14    .9        0      0

...........................................................SAMPLE CRUSHED TO PASS 14 MESH.............................................

FLOAT-1.30     18            3.7   1.0       74      7           .53    .2       81      4           2.21    .6       48      7
FLOAT-1.40     18            5.9   1.1       59     10          1.02    .4       63      5           2.69    .6       36      6
FLOAT-1.60     18            7.8   1.8       46     12          1.46    .6       47      8           3.06    .7       28      6
TOTAL          18           15.9   7.8        0      0          2.75    .8        0      0           4.24   1.0        0      0

                           BTU RECOVERY, PERCENT                   BTU PER POUND                        POUNDS OF SO2/M BTU
                         RAW: 100.0     SIGMA:   0.0            RAW: 12177     SIGMA: 1228              RAW:   7.0     SIGMA:   1.9

 PRODUCT      NO OF       AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  %INCREASE SIGMA        AVERAGE SIGMA  %REDUCTION SIGMA
              SAMPLES

..........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.........................................

FLOAT-1.30     18           27.7  10.3       72     10         13863   297       15     12            3.4    .8       51      6
FLOAT-1.40     18           82.3   8.6       18      9         13467   341       12     11            4.7    .9       31      8
FLOAT-1.60     18           94.3   3.9        6      4         13222   434       10     10            5.5   1.1       20      8
TOTAL          18          100.0   0.0        0      0         12171  1249        0      0            7.0   2.0        0      0

...........................................................SAMPLE CRUSHED TO PASS 3/8 INCH............................................

FLOAT-1.30     18           39.3  10.6       61     11         13892   275       15     12            3.3    .7       51      6
FLOAT-1.40     18           83.8   6.5       16      6         13538   348       12     11            4.4    .9       36      7
FLOAT-1.60     18           93.9   3.2        6      3         13318   390       10     11            5.0   1.1       26      7
TOTAL          18          100.0   0.0        0      0         12184  1251        0      0            6.9   1.9        0      0

...........................................................SAMPLE CRUSHED TO PASS 14 MESH.............................................

FLOAT-1.30     18           38.4  14.3       62     14         13936   341       16     12            3.2    .8       55      6
FLOAT-1.40     18           80.4   8.4       20      8         13617   344       13     11            4.0    .9       43      7
FLOAT-1.60     18           92.6   4.4        7      4         13332   443       10     10            4.6   1.2       35      7
TOTAL          18          100.0   0.0        0      0         12175  1256        0      0            7.1   1.9        0      0
```

```
COALBED:   PITTSBURGH
STATE:     WEST VIRGINIA
NUMBER OF SAMPLES:   16
RAW COAL MOISTURE,PERCENT:  1.2
                  SIGMA:   .3

                                 ASH, PERCENT                         PYRITIC SULFUR, PERCENT                   TOTAL SULFUR, PERCENT
                           RAW: 11.5      SIGMA:    6.1           RAW:  2.07      SIGMA:    .9             RAW:  3.64      SIGMA:   1.1

PRODUCT       NO OF        AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA  REDUCTION SIGMA           AVERAGE SIGMA  REDUCTION SIGMA
              SAMPLES

.........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...............................

FLOAT-1.30      16             4.3    .8        58      12            .47    .1        75       7            2.12    .6        39      11
FLOAT-1.40      16             6.1    .7        40      15           1.04    .4        47      14            2.67    .8        24      12
FLOAT-1.60      16             7.3    .9        29      16           1.38    .6        31      20            2.99   1.0        16      14
TOTAL           16            11.4   6.2         0       0           2.06    .9         0       0            3.60   1.1         0       0

...........................................................SAMPLE CRUSHED TO PASS 3/8 INCH..................................

FLOAT-1.30      16             4.0    .5        61      12            .38    .1        79       9            2.08    .6        41      12
FLOAT-1.40      16             5.9    .8        43      14            .87    .3        56      10            2.54    .7        29      11
FLOAT-1.60      16             7.0   1.0        33      15           1.23    .5        40      16            2.88    .9        20      13
TOTAL           16            11.6   6.3         0       0           2.09   1.0         0       0            3.66   1.2         0       0

...........................................................SAMPLE CRUSHED TO PASS 14 MESH...................................

FLOAT-1.30      16             3.5    .5        65      10            .28    .1        85       6            1.97    .6        45      11
FLOAT-1.40      16             5.3    .8        49      15            .57    .2        71       9            2.23    .7        38      12
FLOAT-1.60      16             6.4   1.0        39      15            .88    .4        56      16            2.53    .8        30      13
TOTAL           16            11.5   6.0         0       0           2.07    .9         0       0            3.65   1.1         0       0

                             BTU RECOVERY, PERCENT                  BTU PER POUND                          POUNDS OF SO2/M BTU
                           RAW: 100.0     SIGMA:    0.0           RAW: 13212     SIGMA: 1025              RAW:   5.6     SIGMA:    1.9

PRODUCT       NO OF        AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA  %INCREASE SIGMA           AVERAGE SIGMA  %REDUCTION SIGMA
              SAMPLES

.........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...............................

FLOAT-1.30      16            50.4  14.9        50      15          14283   157         9      10             3.0    .8        44      11
FLOAT-1.40      16            88.5   5.7        11       6          14009   205         7      10             3.8   1.2        29      11
FLOAT-1.60      16            96.2   2.0         4       2          13835   279         5       9             4.3   1.5        20      12
TOTAL           16           100.0   0.0         0       0          13225  1052         0       0             5.5   1.9         0       0

...........................................................SAMPLE CRUSHED TO PASS 3/8 INCH..................................

FLOAT-1.30      16            54.0  14.7        46      15          14323   174         9      11             2.9    .9        46      12
FLOAT-1.40      16            88.4   5.8        12       6          14043   220         7      10             3.6   1.1        33      11
FLOAT-1.60      16            95.5   2.5         4       2          13877   289         6       9             4.2   1.4        24      11
TOTAL           16           100.0   0.0         0       0          13201  1065         0       0             5.6   2.0         0       0

...........................................................SAMPLE CRUSHED TO PASS 14 MESH...................................

FLOAT-1.30      16            59.3  12.2        41      12          14395   169        10      10             2.7    .9        49      11
FLOAT-1.40      16            87.8   7.4        12       7          14136   212         8       9             3.2   1.0        42      12
FLOAT-1.60      16            95.2   3.3         5       3          13961   280         6       9             3.6   1.2        34      12
TOTAL           16           100.0   0.0         0       0          13209  1024         0       0             5.6   1.9         0       0
```

```
COALBED:PITTSBURGH                    PITTSBURGH                            PITTSBURGH                       PITTSBURGH
STATES: 1 MARYLAND                   18 OHIO                                6 PA. (BITUMINOUS)              16 WEST VIRGINIA
NUMBER OF SAMPLES:   41
RAW COAL MOISTURE,PERCENT:  1.8
                     SIGMA:  1.0

                                   ASH, PERCENT                           PYRITIC SULFUR, PERCENT                TOTAL SULFUR, PERCENT
                              RAW:  13.1      SIGMA:    6.8           RAW:  2.17     SIGMA:    1.0           RAW:  3.60     SIGMA:    1.3

 PRODUCT       NO OF          AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA  REDUCTION SIGMA
               SAMPLES

.....................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.....................................

FLOAT-1.30      41               4.2    .7       63      11              .53    .2       71      23            2.06    .7       40      15
FLOAT-1.40      41               6.3   1.0       45      15             1.17    .5       44      14            2.70    .9       23      13
FLOAT-1.60      41               7.7   1.6       35      16             1.52    .7       29      15            3.03   1.0       14      11
TOTAL           41              13.1   6.9        0       0             2.17   1.0        0       0            3.59   1.3        0       0

.....................................................SAMPLE CRUSHED TO PASS 3/8 INCH.........................................

FLOAT-1.30      41               4.0    .6       65      11              .46    .2       71      44            2.03    .6       41      18
FLOAT-1.40      41               6.0   1.0       48      14              .98    .4       47      41            2.53    .8       27      13
FLOAT-1.60      41               7.2   1.4       39      15             1.33    .6       37      14            2.85   1.0       19      11
TOTAL           41              13.1   6.9        0       0             2.15   1.0        0       0            3.58   1.3        0       0

.....................................................SAMPLE CRUSHED TO PASS 14 MESH..........................................

FLOAT-1.30      40               3.5    .8       69      10              .38    .2       83       5            1.95    .7       47       9
FLOAT-1.40      41               5.4   1.1       54      14              .71    .4       64      28            2.26    .8       36      13
FLOAT-1.60      41               6.9   1.6       42      14             1.06    .6       53      13            2.56    .9       29      11
TOTAL           41              13.1   6.8        0       0             2.20   1.0        0       0            3.63   1.3        0       0

                                BTU RECOVERY, PERCENT                   BTU PER POUND                          POUNDS OF SO2/M BTU
                              RAW: 100.0      SIGMA:    0.0         RAW: 12805     SIGMA: 1192             RAW:   5.8     SIGMA:    2.3

 PRODUCT       NO OF          AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA  %INCREASE SIGMA         AVERAGE SIGMA  %REDUCTION SIGMA
               SAMPLES

.....................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.....................................

FLOAT-1.30      41              39.9  17.9       60      18            14109    348       11      11             2.9   1.0       46      14
FLOAT-1.40      41              84.3  15.0       16      15            13792    405        9      10             3.9   1.3       28      12
FLOAT-1.60      41              94.4   7.1        6       7            13597    487        7       9             4.5   1.6       20      10
TOTAL           41             100.0   0.0        0       0            12806   1205        0       0             5.7   2.3        0       0

.....................................................SAMPLE CRUSHED TO PASS 3/8 INCH.........................................

FLOAT-1.30      41              47.1  16.2       53      16            14140    353       11      11             2.9    .9       46      18
FLOAT-1.40      41              84.8  14.5       15      14            13842    400        9      10             3.7   1.2       33      12
FLOAT-1.60      41              94.0   6.9        6       7            13662    456        8       9             4.2   1.5       25      10
TOTAL           41             100.0   0.0        0       0            12804   1202        0       0             5.7   2.3        0       0

.....................................................SAMPLE CRUSHED TO PASS 14 MESH..........................................

FLOAT-1.30      40              50.1  16.4       50      16            14217    365       12      10             2.8   1.0       52       9
FLOAT-1.40      41              82.9  15.5       17      15            13931    393       10      10             3.3   1.2       42      12
FLOAT-1.60      41              93.2   8.0        7       8            13707    490        8       9             3.8   1.5       34      10
TOTAL           41             100.0   0.0        0       0            12806   1197        0       0             5.8   2.3        0       0
```

```
COALBED:   UPPER FREEPORT
STATE:     PA. (BITUMINOUS)
NUMBER OF SAMPLES:   20
RAW COAL MOISTURE,PERCENT:    .9
                  SIGMA:    .4

                              ASH, PERCENT                        PYRITIC SULFUR, PERCENT                 TOTAL SULFUR, PERCENT
                        RAW: 17.5      SIGMA:   5.5          RAW:  1.87     SIGMA:   1.0            RAW:  2.57     SIGMA:   1.1

 PRODUCT     NO OF       AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  REDUCTION SIGMA
             SAMPLES

..........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..................................

FLOAT-1.30     20            3.7    .6      77      8          .38    .2      80      9          1.08    .3      54      14
FLOAT-1.40     20            6.6    .9      58     14          .73    .5      58     16          1.43    .6      40      16
FLOAT-1.60     20            8.7   1.3      45     17         1.00    .6      45     17          1.69    .7      31      14
TOTAL          20           17.5   5.7       0      0         1.86   1.0       0      0          2.56   1.1       0       0

...........................................................SAMPLE CRUSHED TO PASS 3/8 INCH......................................

FLOAT-1.30     20            3.4    .5      79      7          .24    .2      87      6           .92    .3      60      12
FLOAT-1.40     20            5.8   1.0      64     12          .46    .3      74     13          1.14    .4      52      15
FLOAT-1.60     20            7.8   1.5      51     16          .67    .5      63     17          1.35    .6      44      15
TOTAL          20           17.6   5.6       0      0         1.87   1.0       0      0          2.58   1.2       0       0

...........................................................SAMPLE CRUSHED TO PASS 14 MESH.......................................

FLOAT-1.30     20            3.0    .5      81      5          .18    .1      91      4           .85    .2      63      13
FLOAT-1.40     20            5.3    .9      67     10          .31    .2      82     10           .99    .3      58      14
FLOAT-1.60     20            7.6   1.4      53     13          .48    .3      72     18          1.14    .4      52      15
TOTAL          20           17.4   5.6       0      0         1.87   1.0       0      0          2.57   1.1       0       0

                           BTU RECOVERY, PERCENT                  BTU PER POUND                      POUNDS OF SO2/M BTU
                        RAW: 100.0     SIGMA:   0.0          RAW: 12540     SIGMA:  949             RAW:   4.1     SIGMA:   1.9

 PRODUCT     NO OF       AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA  %INCREASE SIGMA        AVERAGE SIGMA  %REDUCTION SIGMA
             SAMPLES

..........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..................................

FLOAT-1.30     20           45.6  11.8      54     12        14622   244      17      8           1.5    .5      60      12
FLOAT-1.40     20           80.1   6.6      20      7        14186   227      14      8           2.0    .8      47      15
FLOAT-1.60     20           92.0   3.9       8      4        13860   287      11      8           2.4   1.0      37      14
TOTAL          20          100.0   0.0       0      0        12535   982       0      0           4.1   1.9       0       0

...........................................................SAMPLE CRUSHED TO PASS 3/8 INCH......................................

FLOAT-1.30     20           54.4  11.9      46     12        14678   230      18      8           1.3    .4      66      11
FLOAT-1.40     20           81.5   6.2      18      6        14305   216      15      8           1.6    .6      58      13
FLOAT-1.60     20           91.6   3.6       8      4        13995   286      12      8           1.9    .8      50      14
TOTAL          20          100.0   0.0       0      0        12528   957       0      0           4.1   1.9       0       0

...........................................................SAMPLE CRUSHED TO PASS 14 MESH.......................................

FLOAT-1.30     20           51.9  11.7      48     12        14728   232      18      8           1.2    .3      68      11
FLOAT-1.40     20           80.0   6.0      20      6        14387   226      15      8           1.4    .4      63      13
FLOAT-1.60     20           91.6   3.4       8      3        14030   285      12      7           1.6    .6      57      14
TOTAL          20          100.0   0.0       0      0        12555   958       0      0           4.1   1.9       0       0
```

```
COALBED:  UPPER FREEPORT                           UPPER FREEPORT                        UPPER FREEPORT
STATE:     7 MARYLAND                              20 PA. (BITUMINOUS)                   6 WEST VIRGINIA
NUMBER OF SAMPLES:   33
RAW COAL MOISTURE,PERCENT:   .9
                   SIGMA:   .4

                              ASH, PERCENT                  PYRITIC SULFUR, PERCENT          TOTAL SULFUR, PERCENT
                         RAW:  17.8    SIGMA:   5.5         RAW:  1.77    SIGMA:  1.0         RAW:  2.45    SIGMA:  1.1
PRODUCT     NO OF        AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  REDUCTION SIGMA    AVERAGE SIGMA  REDUCTION SIGMA
            SAMPLES

.......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...............................

FLOAT-1.30    33           3.5    .8       79      8           .29    .2       83      9          .97    .3       55     13
FLOAT-1.40    33           6.8   1.0       58     12           .63    .4       62     15         1.30    .5       42     15
FLOAT-1.60    33           9.2   1.9       45     16           .91    .5       46     16         1.58    .6       31     14
TOTAL         33          17.8   5.6        0      0          1.76   1.0        0      0         2.43   1.1        0      0

.......................................................SAMPLE CRUSHED TO PASS 3/8 INCH...................................

FLOAT-1.30    33           3.3    .6       80      6           .21    .2       88      6          .86    .3       61     14
FLOAT-1.40    33           6.2   1.1       63     11           .41    .3       75     11         1.07    .4       52     14
FLOAT-1.60    33           8.4   2.0       50     15           .62    .4       63     16         1.27    .5       44     15
TOTAL         33          17.8   5.6        0      0          1.76   1.1        0      0         2.44   1.2        0      0

.......................................................SAMPLE CRUSHED TO PASS 14 MESH....................................

FLOAT-1.30    33           2.9    .6       82      5           .15    .1       91      4          .81    .2       63     12
FLOAT-1.40    33           5.5    .9       67      9           .27    .2       84      9          .94    .3       57     14
FLOAT-1.60    33           8.1   1.8       52     13           .43    .3       74     16         1.08    .4       52     14
TOTAL         33          17.6   5.4        0      0          1.78   1.1        0      0         2.47   1.2        0      0

                          BTU RECOVERY, PERCENT              BTU PER POUND                    POUNDS OF SO2/M BTU
                         RAW: 100.0    SIGMA:   0.0         RAW: 12535    SIGMA:  929         RAW:   3.9    SIGMA:  1.9
PRODUCT     NO OF        AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  %INCREASE SIGMA    AVERAGE SIGMA  %REDUCTION SIGMA
            SAMPLES

.......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...............................

FLOAT-1.30    33          36.9  17.9       63     18         14696   245       18      9          1.3    .4       62     12
FLOAT-1.40    33          77.3  11.3       23     11         14191   240       14      8          1.8    .7       49     14
FLOAT-1.60    33          91.9   4.2        8      4         13835   353       11      8          2.3    .9       38     14
TOTAL         33         100.0   0.0        0      0         12531   943        0      0          3.9   1.9        0      0

.......................................................SAMPLE CRUSHED TO PASS 3/8 INCH...................................

FLOAT-1.30    33          44.4  19.3       56     19         14723   233       18      9          1.2    .4       67     13
FLOAT-1.40    33          79.1   9.4       21      9         14294   237       15      8          1.5    .5       58     13
FLOAT-1.60    33          91.6   3.8        8      4         13950   354       12      8          1.8    .7       49     14
TOTAL         33         100.0   0.0        0      0         12522   949        0      0          3.9   1.9        0      0

.......................................................SAMPLE CRUSHED TO PASS 14 MESH....................................

FLOAT-1.30    33          43.3  17.4       57     17         14789   225       18      8          1.1    .3       68     10
FLOAT-1.40    33          77.0   9.5       23     10         14399   220       15      8          1.3    .4       63     12
FLOAT-1.60    33          91.3   3.7        9      4         13998   339       12      7          1.5    .5       57     13
TOTAL         33         100.0   0.0        0      0         12553   924        0      0          4.0   1.9        0      0
```

COALBED: LOWER FREEPORT
STATE: PA. (BITUMINOUS)
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE,PERCENT: 1.0
SIGMA: .5

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 13.7 SIGMA: 4.0 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 1.55 SIGMA: .5 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 2.22 SIGMA: .6 AVERAGE	SIGMA	REDUCTION	SIGMA
......SAMPLE CRUSHED TO PASS 1-1/2 INCHES......													
FLOAT-1.30	10	3.7	.8	71	10	.32	.2	78	11	.96	.2	54	11
FLOAT-1.40	10	6.1	1.2	53	13	.66	.2	55	13	1.33	.3	38	12
FLOAT-1.60	10	7.7	1.8	41	16	.84	.3	43	15	1.50	.4	30	12
TOTAL	10	13.7	4.2	0	0	1.53	.5	0	0	2.20	.6	0	0
......SAMPLE CRUSHED TO PASS 3/8 INCH......													
FLOAT-1.30	10	3.3	.6	74	6	.19	.1	88	6	.80	.2	63	7
FLOAT-1.40	10	5.3	.9	60	10	.35	.2	78	9	.96	.3	56	10
FLOAT-1.60	10	6.8	1.6	48	14	.48	.3	69	13	1.09	.4	50	12
TOTAL	10	13.8	4.0	0	0	1.55	.5	0	0	2.20	.6	0	0
......SAMPLE CRUSHED TO PASS 14 MESH......													
FLOAT-1.30	10	2.9	.9	77	7	.13	.1	91	5	.77	.2	64	9
FLOAT-1.40	10	5.0	1.1	62	8	.23	.1	85	5	.87	.2	60	9
FLOAT-1.60	10	6.7	1.6	49	11	.35	.2	78	7	.98	.3	56	9
TOTAL	10	13.5	4.1	0	0	1.58	.5	0	0	2.26	.6	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 13223 SIGMA: 684 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 3.4 SIGMA: .9 AVERAGE	SIGMA	%REDUCTION	SIGMA
......SAMPLE CRUSHED TO PASS 1-1/2 INCHES......													
FLOAT-1.30	10	48.9	19.3	51	19	14748	215	12	5	1.3	.3	59	8
FLOAT-1.40	10	85.5	4.7	14	5	14386	366	9	5	1.8	.5	43	10
FLOAT-1.60	10	94.7	2.0	5	2	14134	448	7	5	2.1	.6	35	11
TOTAL	10	100.0	0.0	0	0	13220	722	0	0	3.3	.9	0	0
......SAMPLE CRUSHED TO PASS 3/8 INCH......													
FLOAT-1.30	10	57.6	13.7	42	14	14806	226	12	5	1.1	.3	67	6
FLOAT-1.40	10	85.4	4.6	15	5	14510	327	10	5	1.3	.4	60	9
FLOAT-1.60	10	94.0	1.6	6	2	14276	426	8	5	1.5	.5	53	11
TOTAL	10	100.0	0.0	0	0	13206	693	0	0	3.3	.9	0	0
......SAMPLE CRUSHED TO PASS 14 MESH......													
FLOAT-1.30	10	51.6	10.4	48	10	14869	259	12	5	1.0	.3	68	7
FLOAT-1.40	10	83.2	5.5	17	6	14557	315	10	5	1.2	.3	64	7
FLOAT-1.60	10	94.0	1.9	6	2	14291	406	8	4	1.4	.4	59	8
TOTAL	10	100.0	0.0	0	0	13244	709	0	0	3.4	1.0	0	0

```
COALBED:  LOWER FREEPORT                                        LOWER FREEPORT                                        LOWER FREEPORT
STATE:      1 MARYLAND                                           2 OHIO                                               10 PA. (BITUMINOUS)
NUMBER OF SAMPLES:   13
RAW COAL MOISTURE,PERCENT:  1.1
                    SIGMA:   .7

                                   ASH, PERCENT                          PYRITIC SULFUR, PERCENT                       TOTAL SULFUR, PERCENT
                            RAW:  13.5      SIGMA:    3.9            RAW:  1.70      SIGMA:     .7                  RAW:  2.39      SIGMA:     .7

 PRODUCT        NO OF       AVERAGE SIGMA  REDUCTION SIGMA           AVERAGE SIGMA  REDUCTION SIGMA                 AVERAGE SIGMA  REDUCTION SIGMA
                SAMPLES

.......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.......................................

FLOAT-1.30       13            3.6     .7      71        9             .34     .1      78       11                 1.00     .2      55       11
FLOAT-1.40       13            6.1    1.2      52       11             .68     .2      56       15                 1.38     .3      39       14
FLOAT-1.60       13            7.7    1.7      41       14             .89     .3      44       15                 1.59     .4      30       13
TOTAL            13           13.5    4.0       0        0            1.68     .7       0        0                 2.38     .8       0        0

........................................................SAMPLE CRUSHED TO PASS 3/8 INCH.........................................

FLOAT-1.30       13            3.2     .6      75        7             .20     .1      87        7                  .83     .2      63        8
FLOAT-1.40       13            5.3    1.1      59        8             .38     .2      77        9                 1.02     .3      55       10
FLOAT-1.60       13            6.7    1.7      48       13             .53     .2      67       13                 1.17     .4      49       13
TOTAL            13           13.5    4.0       0        0            1.69     .7       0        0                 2.35     .7       0        0

........................................................SAMPLE CRUSHED TO PASS 14 MESH..........................................

FLOAT-1.30       13            2.8     .9      78        6             .14     .1      91        5                  .81     .2      65        8
FLOAT-1.40       13            4.9    1.1      62        7             .25     .1      85        5                  .91     .2      61        9
FLOAT-1.60       13            6.6    1.6      49       10             .38     .2      78        6                 1.03     .3      56        9
TOTAL            13           13.4    4.0       0        0            1.74     .7       0        0                 2.43     .8       0        0

                                BTU RECOVERY, PERCENT                    BTU PER POUND                               POUNDS OF SO2/M BTU
                            RAW: 100.0      SIGMA:     0.0           RAW: 13185      SIGMA:  617                    RAW:   3.6      SIGMA:    1.2

 PRODUCT        NO OF       AVERAGE SIGMA  REDUCTION SIGMA           AVERAGE SIGMA  %INCREASE SIGMA                 AVERAGE SIGMA  %REDUCTION SIGMA
                SAMPLES

.......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.......................................

FLOAT-1.30       13           46.8   21.1      53       21           14682    266      12        5                  1.4     .3      60        9
FLOAT-1.40       13           85.4    6.1      15        6           14309    353       9        5                  1.9     .5      44       13
FLOAT-1.60       13           94.6    2.8       5        3           14070    407       7        4                  2.3     .6      35       12
TOTAL            13          100.0    0.0       0        0           13182    644       0        0                  3.6    1.2       0        0

........................................................SAMPLE CRUSHED TO PASS 3/8 INCH.........................................

FLOAT-1.30       13           55.5   19.7      44       20           14750    267      12        5                  1.1     .3      67        8
FLOAT-1.40       13           85.7    5.0      14        5           14436    316      10        5                  1.4     .4      59       10
FLOAT-1.60       13           93.9    2.4       6        2           14216    387       8        4                  1.7     .5      52       12
TOTAL            13          100.0    0.0       0        0           13180    622       0        0                  3.6    1.1       0        0

........................................................SAMPLE CRUSHED TO PASS 14 MESH..........................................

FLOAT-1.30       13           49.7   15.0      50       15           14814    282      12        5                  1.1     .3      69        7
FLOAT-1.40       13           82.8    6.6      17        7           14495    302      10        4                  1.3     .3      64        8
FLOAT-1.60       13           93.9    2.2       6        2           14234    368       8        4                  1.5     .4      59        8
TOTAL            13          100.0    0.0       0        0           13195    637       0        0                  3.7    1.2       0        0
```

COALBED: UPPER KITTANNING
STATE: 2 MARYLAND
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE,PERCENT: 1.3
SIGMA: 1.0

UPPER KITTANNING
8 PA. (BITUMINOUS)

		ASH, PERCENT RAW: 16.5 SIGMA: 6.9				PYRITIC SULFUR, PERCENT RAW: 1.62 SIGMA: 1.2				TOTAL SULFUR, PERCENT RAW: 2.21 SIGMA: 1.3			
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	10	2.6	.6	83	6	.12	.1	85	18	.77	.3	53	29
FLOAT-1.40	10	6.0	1.0	59	15	.33	.3	74	17	.95	.4	48	24
FLOAT-1.60	10	8.5	1.1	43	17	.58	.5	64	14	1.21	.6	39	19
TOTAL	10	16.6	7.0	0	0	1.62	1.2	0	0	2.21	1.3	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	10	2.5	.4	83	6	.10	.1	84	23	.76	.3	52	30
FLOAT-1.40	10	5.4	.8	63	13	.26	.2	77	22	.87	.4	49	27
FLOAT-1.60	10	7.7	1.2	48	18	.40	.4	72	16	1.01	.5	46	23
TOTAL	10	16.7	7.4	0	0	1.61	1.2	0	0	2.20	1.3	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	10	2.3	.5	84	8	.10	.1	83	30	.74	.3	55	27
FLOAT-1.40	10	4.8	.7	67	9	.20	.2	80	22	.83	.3	52	27
FLOAT-1.60	10	7.4	1.1	50	14	.38	.4	75	15	.98	.5	47	24
TOTAL	10	16.2	6.9	0	0	1.64	1.3	0	0	2.22	1.3	0	0

		BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12752 SIGMA: 1069				POUNDS OF SO2/M BTU RAW: 3.5 SIGMA: 2.0			
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	10	22.9	15.3	77	15	14881	224	18	12	1.0	.4	59	26
FLOAT-1.40	10	77.0	4.0	23	4	14350	258	14	12	1.3	.6	53	22
FLOAT-1.60	10	91.7	4.0	8	4	13976	262	11	11	1.7	.9	44	18
TOTAL	10	100.0	0.0	0	0	12740	1094	0	0	3.5	2.0	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	10	29.1	15.8	71	16	14896	204	18	13	1.0	.4	59	27
FLOAT-1.40	10	78.1	3.9	22	4	14443	238	15	12	1.2	.6	55	25
FLOAT-1.60	10	91.5	3.8	8	4	14097	291	12	12	1.4	.7	51	22
TOTAL	10	100.0	0.0	0	0	12724	1152	0	0	3.4	2.0	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	10	26.3	16.0	74	16	14913	229	17	12	1.0	.4	61	23
FLOAT-1.40	10	73.5	5.4	26	5	14540	223	14	11	1.1	.5	58	24
FLOAT-1.60	10	91.6	3.9	8	4	14134	256	11	10	1.4	.7	52	23
TOTAL	10	100.0	0.0	0	0	12791	1076	0	0	3.5	2.0	0	0

COALBED: MIDDLE KITTANNING
STATE: OHIO
NUMBER OF SAMPLES: 14
RAW COAL MOISTURE, PERCENT: 4.3
SIGMA: 1.7

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 12.0 SIGMA: 4.6				PYRITIC SULFUR, PERCENT RAW: 2.09 SIGMA: 1.3				TOTAL SULFUR, PERCENT RAW: 3.35 SIGMA: 1.8			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	14	3.4	.8	67	15	.43	.2	72	14	1.55	.6	45	23
FLOAT-1.40	14	5.0	1.3	54	16	.67	.4	61	16	1.81	.8	38	20
FLOAT-1.60	14	6.7	2.9	42	17	.84	.5	54	16	1.99	.9	34	18
TOTAL	14	12.0	4.7	0	0	2.13	1.4	0	0	3.39	1.9	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	14	2.7	.5	73	13	.30	.2	80	12	1.44	.7	49	24
FLOAT-1.40	14	4.1	1.1	61	15	.47	.3	72	12	1.63	.8	44	22
FLOAT-1.60	14	5.7	2.4	49	17	.62	.4	64	14	1.78	.9	40	20
TOTAL	14	11.8	4.6	0	0	2.05	1.3	0	0	3.32	1.8	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	14	2.4	.4	77	11	.25	.1	84	9	1.37	.7	52	24
FLOAT-1.40	14	3.8	.9	65	14	.39	.2	78	10	1.53	.8	48	24
FLOAT-1.60	14	5.6	2.3	51	15	.56	.4	70	12	1.69	.9	44	22
TOTAL	14	12.3	4.9	0	0	2.10	1.4	0	0	3.34	1.8	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12598 SIGMA: 803				POUNDS OF SO2/M BTU RAW: 5.4 SIGMA: 3.0			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	14	60.5	19.7	40	20	13830	298	10	6	2.2	.9	50	21
FLOAT-1.40	14	86.9	9.4	13	9	13602	351	8	5	2.7	1.1	43	19
FLOAT-1.60	14	95.1	2.6	5	3	13368	572	6	4	3.0	1.3	38	17
TOTAL	14	100.0	0.0	0	0	12596	815	0	0	5.4	3.1	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	14	64.5	17.4	36	17	13926	322	11	5	2.1	1.0	54	22
FLOAT-1.40	14	87.3	7.9	13	8	13725	365	9	5	2.4	1.1	48	21
FLOAT-1.60	14	94.6	2.7	5	3	13509	528	7	4	2.6	1.3	44	19
TOTAL	14	100.0	0.0	0	0	12635	806	0	0	5.3	3.0	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	14	55.9	16.6	44	17	13977	311	12	6	2.0	1.0	57	21
FLOAT-1.40	14	83.2	9.7	17	10	13775	364	10	6	2.2	1.1	52	22
FLOAT-1.60	14	94.0	3.4	6	3	13514	537	8	4	2.5	1.3	48	21
TOTAL	14	100.0	0.0	0	0	12562	848	0	0	5.4	3.0	0	0

```
COALBED:    MIDDLE KITTANNING
STATE:      PA. (BITUMINOUS)
NUMBER OF SAMPLES:   10
RAW COAL MOISTURE,PERCENT:    .8
                   SIGMA:     .6

                                    ASH, PERCENT                       PYRITIC SULFUR, PERCENT                 TOTAL SULFUR, PERCENT
                             RAW:  13.0      SIGMA:    5.4          RAW:  1.93     SIGMA:    1.8            RAW:  2.77     SIGMA:    2.3
PRODUCT       NO OF
              SAMPLES       AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA  REDUCTION SIGMA

..........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.................................

FLOAT-1.30      10             3.4    .7       70      12            .30    .3       79      20            1.06    .5       51      23
FLOAT-1.40      10             6.6   1.5       45      14            .70    .8       59      22            1.48   1.0       38      20
FLOAT-1.60      10             9.0   2.6       27      13           1.04   1.2       44      19            1.84   1.6       29      15
TOTAL           10            13.1   5.7        0       0           1.94   1.9        0       0            2.76   2.4        0       0

..........................................................SAMPLE CRUSHED TO PASS 3/8 INCH.....................................

FLOAT-1.30      10             3.1    .5       74       8            .25    .3       82      21            1.03    .5       52      23
FLOAT-1.40      10             5.9   1.5       51      12            .55    .6       69      20            1.34    .9       44      19
FLOAT-1.60      10             8.1   2.1       33      13            .81   1.0       57      21            1.59   1.3       38      17
TOTAL           10            13.0   5.6        0       0           1.93   1.8        0       0            2.75   2.4        0       0

..........................................................SAMPLE CRUSHED TO PASS 14 MESH......................................

FLOAT-1.30      10             2.7    .7       77       5            .23    .3       85      12            1.06    .4       51      23
FLOAT-1.40      10             5.3   1.3       56      10            .44    .6       76      14            1.28    .9       47      19
FLOAT-1.60      10             7.6   1.9       37      12            .68    .8       65      14            1.49   1.2       42      18
TOTAL           10            13.0   5.5        0       0           1.94   1.9        0       0            2.79   2.4        0       0

                                BTU RECOVERY, PERCENT                  BTU PER POUND                       POUNDS OF SO2/M BTU
                             RAW: 100.0      SIGMA:    0.0          RAW: 13271      SIGMA:  871          RAW:    4.4     SIGMA:    4.1
PRODUCT       NO OF
              SAMPLES       AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA  %INCREASE SIGMA         AVERAGE SIGMA  %REDUCTION SIGMA

..........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.................................

FLOAT-1.30      10            34.0  23.9       66      24          14734    370       12       7             1.4    .7       55      23
FLOAT-1.40      10            77.7  10.6       22      17          14247    359        8       6             2.1   1.5       42      21
FLOAT-1.60      10            92.8   7.1        7       7          13878    496        5       4             2.7   2.4       32      17
TOTAL           10           100.0   0.0        0       0          13253    912        0       0             4.4   4.4        0       0

..........................................................SAMPLE CRUSHED TO PASS 3/8 INCH.....................................

FLOAT-1.30      10            39.7  21.2       60      21          14791    331       12       7             1.4    .7       56      23
FLOAT-1.40      10            79.6  12.5       20      12          14349    341        8       6             1.9   1.4       48      20
FLOAT-1.60      10            92.9   6.3        7       6          14020    440        6       5             2.3   2.0       41      18
TOTAL           10           100.0   0.0        0       0          13280    895        0       0             4.3   4.2        0       0

..........................................................SAMPLE CRUSHED TO PASS 14 MESH......................................

FLOAT-1.30      10            34.4  15.0       66      15          14840    329       12       7             1.4    .6       56      22
FLOAT-1.40      10            75.7  13.4       24      13          14448    346        9       6             1.8   1.2       51      20
FLOAT-1.60      10            92.8   5.8        7       6          14090    418        6       5             2.1   1.8       44      19
TOTAL           10           100.0   0.0        0       0          13280    901        0       0             4.4   4.3        0       0
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COALBED:  MIDDLE KITTANNING
STATE:    14 OHIO                                 MIDDLE KITTANNING                          MIDDLE KITTANNING
NUMBER OF SAMPLES:   27                           10 PA. (BITUMINOUS)                        3 WEST VIRGINIA
RAW COAL MOISTURE,PERCENT:  2.7
                   SIGMA:  2.1

                               ASH, PERCENT                   PYRITIC SULFUR, PERCENT             TOTAL SULFUR, PERCENT
                         RAW:  13.1      SIGMA:   5.1      RAW:  1.97     SIGMA:   1.5        RAW:  3.00     SIGMA:   2.0
PRODUCT      NO OF
             SAMPLES     AVERAGE SIGMA  REDUCTION SIGMA    AVERAGE SIGMA  REDUCTION SIGMA    AVERAGE SIGMA  REDUCTION SIGMA

...................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.....................................

FLOAT-1.30     27           3.4    .7       70     14        .35    .3       76     17        1.30    .6       48     23
FLOAT-1.40     27           5.7   1.5       52     16        .67    .5       60     18        1.63    .8       38     19
FLOAT-1.60     27           7.9   2.9       37     17        .93    .8       49     18        1.89   1.1       31     17
TOTAL          27          13.2   5.2        0      0       2.00   1.5        0      0        3.02   2.0        0      0

...................................................SAMPLE CRUSHED TO PASS 3/8 INCH.........................................

FLOAT-1.30     27           2.9    .5       74     11        .26    .2       82     15        1.22    .6       50     23
FLOAT-1.40     27           5.0   1.5       57     14        .49    .4       70     16        1.46    .8       43     21
FLOAT-1.60     27           6.9   2.5       43     16        .69    .7       60     17        1.65   1.0       38     19
TOTAL          27          12.9   5.1        0      0       1.95   1.5        0      0        2.98   2.0        0      0

...................................................SAMPLE CRUSHED TO PASS 14 MESH..........................................

FLOAT-1.30     27           2.6    .6       78      9        .23    .2       85     10        1.19    .6       52     23
FLOAT-1.40     27           4.5   1.3       62     13        .39    .4       77     13        1.37    .8       47     22
FLOAT-1.60     27           6.7   2.3       46     15        .59    .6       68     15        1.55   1.0       43     21
TOTAL          27          13.2   5.1        0      0       1.98   1.5        0      0        3.00   2.0        0      0

                            BTU RECOVERY, PERCENT            BTU PER POUND                    POUNDS OF SO2/M BTU
                         RAW: 100.0      SIGMA:   0.0      RAW: 12820      SIGMA:  864        RAW:   4.8     SIGMA:   3.4
PRODUCT      NO OF
             SAMPLES     AVERAGE SIGMA  REDUCTION SIGMA    AVERAGE SIGMA  %INCREASE SIGMA    AVERAGE SIGMA  %REDUCTION SIGMA

...................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.....................................

FLOAT-1.30     27          47.6  24.1       52     24      14255    545       12      7         1.8    .9       53     21
FLOAT-1.40     27          81.5  13.4       18     13      13908    460        9      6         2.4   1.2       42     19
FLOAT-1.60     27          93.6   5.0        6      5      13583    555        6      4         2.8   1.7       35     16
TOTAL          27         100.0   0.0        0      0      12806    873        0      0         4.8   3.5        0      0

...................................................SAMPLE CRUSHED TO PASS 3/8 INCH.........................................

FLOAT-1.30     27          52.6  21.6       47     22      14326    521       12      6         1.7    .9       55     22
FLOAT-1.40     27          83.3  10.3       17     10      14013    448        9      6         2.1   1.2       48     20
FLOAT-1.60     27          93.4   4.6        7      5      13735    516        7      5         2.4   1.5       42     18
TOTAL          27         100.0   0.0        0      0      12847    861        0      0         4.7   3.4        0      0

...................................................SAMPLE CRUSHED TO PASS 14 MESH..........................................

FLOAT-1.30     27          46.7  18.1       53     18      14376    517       13      6         1.7    .8       57     21
FLOAT-1.40     27          79.6  11.1       20     11      14085    466       10      6         2.0   1.1       52     21
FLOAT-1.60     27          93.2   4.4        7      4      13771    531        8      5         2.3   1.5       46     20
TOTAL          27         100.0   0.0        0      0      12809    890        0      0         4.8   3.4        0      0
```

COALBED: LOWER KITTANNING
STATE: PA. (BITUMINOUS)
NUMBER OF SAMPLES: 33
RAW COAL MOISTURE, PERCENT: .8
SIGMA: .4

		ASH, PERCENT RAW: 16.0 SIGMA: 7.2				PYRITIC SULFUR, PERCENT RAW: 2.38 SIGMA: 1.4				TOTAL SULFUR, PERCENT RAW: 3.23 SIGMA: 1.6			
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	33	3.6	.6	73	11	.37	.3	83	10	1.21	.4	55	20
FLOAT-1.40	33	5.9	1.3	58	15	.74	.5	67	14	1.58	.6	44	18
FLOAT-1.60	33	8.2	2.4	43	17	1.03	.7	54	15	1.87	.8	37	17
TOTAL	33	16.0	7.4	0	0	2.36	1.4	0	0	3.22	1.6	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	33	3.2	.6	77	9	.30	.2	87	7	1.13	.4	57	21
FLOAT-1.40	33	5.2	1.3	63	14	.55	.4	76	11	1.38	.5	50	20
FLOAT-1.60	33	7.3	2.2	49	16	.77	.5	66	13	1.59	.7	45	18
TOTAL	33	16.1	7.3	0	0	2.38	1.4	0	0	3.23	1.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	33	2.8	.5	80	8	.24	.2	88	6	1.08	.3	58	21
FLOAT-1.40	33	4.7	1.0	67	11	.43	.3	81	9	1.24	.4	54	19
FLOAT-1.60	33	6.9	1.9	52	13	.65	.4	72	11	1.46	.5	48	18
TOTAL	33	15.9	7.0	0	0	2.39	1.4	0	0	3.25	1.6	0	0

		BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12822 SIGMA: 1170				POUNDS OF SO2/M BTU RAW: 5.1 SIGMA: 2.5			
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	33	48.8	16.3	51	16	14711	266	16	12	1.6	.5	60	19
FLOAT-1.40	33	79.6	10.7	20	11	14363	339	13	11	2.2	.9	50	18
FLOAT-1.60	33	91.2	4.9	9	5	14015	459	10	10	2.7	1.2	42	17
TOTAL	33	100.0	0.0	0	0	12823	1202	0	0	5.1	2.5	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	33	54.4	15.7	46	16	14777	266	16	12	1.5	.5	63	19
FLOAT-1.40	33	80.9	9.3	19	9	14464	338	14	11	1.9	.8	56	19
FLOAT-1.60	33	90.8	5.0	9	5	14147	435	11	10	2.3	1.0	50	18
TOTAL	33	100.0	0.0	0	0	12803	1196	0	0	5.1	2.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	33	49.6	13.7	50	14	14842	257	17	11	1.5	.4	64	20
FLOAT-1.40	33	79.6	9.1	20	9	14547	294	14	10	1.7	.6	60	18
FLOAT-1.60	33	90.9	4.9	9	5	14211	406	11	9	2.1	.8	53	17
TOTAL	33	100.0	0.0	0	0	12839	1147	0	0	5.1	2.6	0	0

COALBED:LOWER KITTANNING
STATES: 3 MARYLAND
NUMBER OF SAMPLES: 47
RAW COAL MOISTURE,PERCENT: 1.5
SIGMA: 1.4

LOWER KITTANNING
7 OHIO

LOWER KITTANNING
33 PA. (BITUMINOUS)

LOWER KITTANNING
4 WEST VIRGINIA

		ASH, PERCENT RAW: 15.0 SIGMA: 6.5				PYRITIC SULFUR, PERCENT RAW: 2.16 SIGMA: 1.5				TOTAL SULFUR, PERCENT RAW: 3.01 SIGMA: 1.7			
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
....SAMPLE CRUSHED TO PASS 1-1/2 INCHES....													
FLOAT-1.30	45	3.6	.6	72	12	.38	.3	80	12	1.21	.4	51	24
FLOAT-1.40	47	5.9	1.4	55	16	.77	.6	60	19	1.59	.8	37	23
FLOAT-1.60	47	8.3	2.4	39	18	1.05	.8	47	18	1.88	1.0	30	20
TOTAL	47	15.0	6.7	0	0	2.15	1.5	0	0	3.01	1.7	0	0
....SAMPLE CRUSHED TO PASS 3/8 INCH....													
FLOAT-1.30	45	3.2	.6	76	9	.28	.2	84	13	1.09	.4	54	25
FLOAT-1.40	47	5.1	1.4	62	14	.51	.4	73	13	1.32	.6	44	27
FLOAT-1.60	47	7.2	2.2	47	16	.73	.6	61	19	1.53	.8	39	23
TOTAL	47	15.0	6.7	0	0	2.14	1.5	0	0	2.98	1.7	0	0
....SAMPLE CRUSHED TO PASS 14 MESH....													
FLOAT-1.30	45	2.7	.6	79	8	.23	.2	86	13	1.05	.3	56	26
FLOAT-1.40	47	4.6	1.1	66	11	.39	.3	77	15	1.19	.5	49	26
FLOAT-1.60	47	6.8	1.9	51	13	.60	.4	68	16	1.40	.6	44	23
TOTAL	47	14.9	6.4	0	0	2.18	1.5	0	0	3.04	1.8	0	0

		BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12783 SIGMA: 1042				POUNDS OF SO2/M BTU RAW: 4.8 SIGMA: 2.8			
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
....SAMPLE CRUSHED TO PASS 1-1/2 INCHES....													
FLOAT-1.30	45	45.4	18.9	55	19	14539	428	14	11	1.7	.6	57	22
FLOAT-1.40	47	78.8	14.5	21	14	14152	504	11	10	2.3	1.2	43	22
FLOAT-1.60	47	92.4	4.8	8	5	13798	606	9	9	2.7	1.5	35	20
TOTAL	47	100.0	0.0	0	0	12781	1066	0	0	4.8	2.8	0	0
....SAMPLE CRUSHED TO PASS 3/8 INCH....													
FLOAT-1.30	45	54.5	17.2	46	17	14610	415	15	11	1.5	.5	60	23
FLOAT-1.40	47	80.2	13.3	20	13	14274	463	12	10	1.9	.9	50	25
FLOAT-1.60	47	91.8	4.7	8	5	13955	554	10	9	2.2	1.1	44	22
TOTAL	47	100.0	0.0	0	0	12776	1058	0	0	4.7	2.8	0	0
....SAMPLE CRUSHED TO PASS 14 MESH....													
FLOAT-1.30	45	49.5	15.3	50	15	14672	419	15	10	1.4	.5	61	24
FLOAT-1.40	47	78.3	13.8	22	14	14354	444	13	9	1.7	.7	54	24
FLOAT-1.60	47	91.6	4.7	8	5	14016	529	10	8	2.0	.9	49	22
TOTAL	47	100.0	0.0	0	0	12791	1024	0	0	4.8	2.9	0	0

SOUTHERN APPALACHIAN REGION

NUMBER OF SAMPLES: 35

RAW COAL MOISTURE,PERCENT: 1.8

SIGMA: .8

		ASH, PERCENT RAW: 11.0 SIGMA: 6.0				PYRITIC SULFUR, PERCENT RAW: .37 SIGMA: .4				TOTAL SULFUR, PERCENT RAW: 1.04 SIGMA: .6			
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	35	2.6	.7	70	13	.11	.1	54	29	.86	.3	10	17
FLOAT-1.40	35	4.3	1.7	53	19	.17	.2	40	24	.90	.4	7	14
FLOAT-1.60	35	5.6	2.3	41	21	.21	.2	33	21	.93	.5	6	12
TOTAL	35	10.9	5.9	0	0	.36	.4	0	0	1.04	.6	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	35	2.4	.7	72	13	.11	.1	57	29	.85	.3	11	16
FLOAT-1.40	35	3.9	1.6	57	18	.15	.2	47	26	.88	.4	9	15
FLOAT-1.60	35	5.1	2.2	45	21	.19	.2	39	23	.91	.4	8	12
TOTAL	35	11.0	6.2	0	0	.37	.4	0	0	1.04	.7	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	35	2.0	.7	77	11	.10	.1	63	28	.84	.3	12	19
FLOAT-1.40	35	3.5	1.4	62	15	.14	.1	57	24	.87	.3	11	16
FLOAT-1.60	35	5.0	2.1	47	19	.18	.2	47	23	.89	.4	10	13
TOTAL	35	11.0	5.9	0	0	.38	.5	0	0	1.05	.7	0	0

		BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 13314 SIGMA: 926				POUNDS OF SO2/M BTU RAW: 1.6 SIGMA: 1.0			
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	35	58.8	22.1	41	22	14574	294	10	7	1.2	.5	18	15
FLOAT-1.40	35	90.2	6.2	10	6	14316	374	8	7	1.3	.6	14	13
FLOAT-1.60	35	96.5	2.6	3	3	14132	429	6	7	1.3	.7	12	10
TOTAL	35	100.0	0.0	0	0	13321	921	0	0	1.6	1.0	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	35	62.2	19.1	38	19	14612	293	10	8	1.2	.5	19	15
FLOAT-1.40	35	89.5	6.3	11	6	14383	354	9	8	1.2	.5	16	13
FLOAT-1.60	35	96.1	2.9	4	3	14197	413	7	7	1.3	.6	14	11
TOTAL	35	100.0	0.0	0	0	13309	960	0	0	1.6	1.0	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	35	56.9	16.7	43	17	14659	304	11	8	1.2	.4	20	16
FLOAT-1.40	35	86.9	7.0	13	7	14436	339	9	7	1.2	.5	18	14
FLOAT-1.60	35	95.8	2.8	4	3	14211	401	7	7	1.3	.6	16	11
TOTAL	35	100.0	0.0	0	0	13312	923	0	0	1.6	1.0	0	0

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                         ALABAMA REGION
        NUMBER OF SAMPLES:  10
        RAW COAL MOISTURE,PERCENT:  1.4
                         SIGMA:     .8

                                  ASH, PERCENT                     PYRITIC SULFUR, PERCENT                TOTAL SULFUR, PERCENT
                               RAW:   9.5     SIGMA:   6.2        RAW:   .69    SIGMA:    .8            RAW:  1.33     SIGMA:    .9

        PRODUCT     NO OF     AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  REDUCTION SIGMA
                   SAMPLES

        ......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES......................................

        FLOAT-1.30    10          2.7    1.3       62     19          .17     .1       59     23            .87    .2       21     23
        FLOAT-1.40    10          4.7    3.3       46     17          .41     .5       37     18           1.10    .6       11     11
        FLOAT-1.60    10          6.1    4.5       34     17          .53     .7       26     16           1.21    .8        7      8
        TOTAL         10          9.5    6.4        0      0          .68     .8        0      0           1.33    .9        0      0

        ........................................................SAMPLE CRUSHED TO PASS 3/8 INCH........................................

        FLOAT-1.30    10          2.6    1.3       64     19          .17     .1       61     21            .87    .2       20     23
        FLOAT-1.40    10          4.4    3.1       49     17          .38     .5       42     16           1.08    .6       13     11
        FLOAT-1.60    10          5.8    4.3       37     17          .49     .7       31     19           1.16    .8        9      8
        TOTAL         10          9.4    6.3        0      0          .68     .8        0      0           1.32   1.0        0      0

        ........................................................SAMPLE CRUSHED TO PASS 14 MESH.........................................

        FLOAT-1.30    10          2.2    1.1       69     15          .15     .1       69     21            .85    .2       24     22
        FLOAT-1.40    10          4.0    2.7       54     14          .28     .3       55     15            .97    .4       19     16
        FLOAT-1.60    10          5.6    4.1       41     14          .39     .5       43     17           1.06    .7       16     12
        TOTAL         10          9.6    6.4        0      0          .71     .8        0      0           1.35   1.0        0      0

                               BTU RECOVERY, PERCENT              BTU PER POUND                           POUNDS OF SO2/M BTU
                              RAW: 100.0     SIGMA:   0.0         RAW: 13696     SIGMA:  883             RAW:   2.0     SIGMA:   1.5

        PRODUCT     NO OF     AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  %INCREASE SIGMA        AVERAGE SIGMA  %REDUCTION SIGMA
                   SAMPLES

        ......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES......................................

        FLOAT-1.30    10         60.2   32.7       40     33         14727    331        8      6            1.2    .3       26     23
        FLOAT-1.40    10         87.6   11.3       12     11         14423    499        6      4            1.5    .9       16     12
        FLOAT-1.60    10         96.4    3.1        4      3         14213    657        4      3            1.7   1.3       11      8
        TOTAL         10        100.0    0.0        0      0         13699    915        0      0            2.0   1.5        0      0

        ........................................................SAMPLE CRUSHED TO PASS 3/8 INCH........................................

        FLOAT-1.30    10         63.2   29.2       37     29         14750    344        8      6            1.2    .3       26     23
        FLOAT-1.40    10         87.9   10.1       12     10         14475    484        6      4            1.5    .9       17     12
        FLOAT-1.60    10         96.4    3.0        4      3         14264    637        4      3            1.7   1.2       13      9
        TOTAL         10        100.0    0.0        0      0         13705    909        0      0            2.0   1.5        0      0

        ........................................................SAMPLE CRUSHED TO PASS 14 MESH.........................................

        FLOAT-1.30    10         62.2   24.1       38     24         14805    347        9      7            1.2    .3       30     22
        FLOAT-1.40    10         85.8   11.1       14     11         14539    443        7      5            1.4    .6       24     16
        FLOAT-1.60    10         95.8    3.3        4      3         14294    613        5      3            1.5   1.0       20     13
        TOTAL         10        100.0    0.0        0      0         13683    923        0      0            2.0   1.5        0      0
```

EASTERN MIDWEST REGION
NUMBER OF SAMPLES: 95
RAW COAL MOISTURE,PERCENT: 4.9
SIGMA: 2.6

		ASH, PERCENT RAW: 14.2 SIGMA: 4.8				PYRITIC SULFUR, PERCENT RAW: 2.29 SIGMA: 1.0				TOTAL SULFUR, PERCENT RAW: 3.92 SIGMA: 1.2			
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	95	4.5	1.1	65	15	.61	.3	70	13	2.35	.7	38	13
FLOAT-1.40	95	6.8	1.4	48	17	.92	.3	57	15	2.64	.7	31	12
FLOAT-1.60	95	8.2	1.8	38	19	1.18	.5	45	17	2.89	.8	25	12
TOTAL	95	14.2	4.8	0	0	2.29	1.0	0	0	3.92	1.2	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	95	3.9	.9	69	13	.54	.2	73	13	2.29	.7	40	13
FLOAT-1.40	95	5.9	1.3	54	16	.80	.3	62	15	2.53	.7	33	12
FLOAT-1.60	95	7.5	1.7	42	18	1.03	.4	51	17	2.74	.8	28	13
TOTAL	95	14.1	4.7	0	0	2.27	.9	0	0	3.89	1.2	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	95	3.2	.8	75	10	.45	.2	78	11	2.19	.7	43	14
FLOAT-1.40	95	5.3	1.1	60	14	.67	.2	68	12	2.41	.7	37	13
FLOAT-1.60	95	7.3	1.5	45	16	.92	.3	57	14	2.62	.8	32	12
TOTAL	95	14.3	4.8	0	0	2.32	1.0	0	0	3.94	1.2	0	0

		BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12189 SIGMA: 749				POUNDS OF SO2/M BTU RAW: 6.5 SIGMA: 2.1			
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	95	53.6	16.9	46	17	13560	293	12	8	3.5	1.0	44	14
FLOAT-1.40	95	87.1	5.5	13	6	13236	293	9	7	4.0	1.1	36	13
FLOAT-1.60	95	95.2	2.4	5	2	13041	342	7	7	4.4	1.3	30	13
TOTAL	95	100.0	0.0	0	0	12186	759	0	0	6.5	2.1	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	95	53.6	14.4	46	14	13655	253	12	7	3.4	1.0	46	14
FLOAT-1.40	95	85.8	5.3	14	5	13358	267	10	7	3.8	1.1	39	13
FLOAT-1.60	95	94.9	2.4	5	2	13138	321	8	7	4.2	1.2	33	14
TOTAL	95	100.0	0.0	0	0	12209	737	0	0	6.4	2.1	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	95	41.5	17.3	59	17	13747	237	13	7	3.2	1.0	49	14
FLOAT-1.40	95	80.7	7.0	19	7	13454	257	11	7	3.6	1.1	43	13
FLOAT-1.60	95	93.9	3.0	6	3	13163	306	9	6	4.0	1.2	37	13
TOTAL	95	100.0	0.0	0	0	12172	758	0	0	6.5	2.2	0	0

COALBED: NO. VI NO. 12
STATE: 6 INDIANA 6 KENTUCKY (WEST)
NUMBER OF SAMPLES: 12
RAW COAL MOISTURE,PERCENT: 4.8
SIGMA: 2.9

		ASH, PERCENT RAW: 15.9 SIGMA: 2.4				PYRITIC SULFUR, PERCENT RAW: 2.48 SIGMA: .5				TOTAL SULFUR, PERCENT RAW: 3.87 SIGMA: .6			
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	12	4.7	.5	70	6	.74	.2	69	12	2.18	.5	43	12
FLOAT-1.40	12	8.1	1.2	49	7	1.10	.3	54	14	2.57	.5	33	12
FLOAT-1.60	12	10.2	1.8	36	10	1.34	.3	45	16	2.81	.5	27	12
TOTAL	12	16.0	2.6	0	0	2.51	.6	0	0	3.90	.7	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	12	3.9	.5	75	4	.65	.2	72	9	2.12	.5	44	10
FLOAT-1.40	12	7.2	1.2	54	6	1.02	.2	57	12	2.50	.5	34	10
FLOAT-1.60	12	9.4	1.5	41	8	1.26	.3	47	14	2.73	.5	28	10
TOTAL	12	15.9	2.3	0	0	2.45	.5	0	0	3.83	.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	12	3.1	.6	80	5	.54	.2	77	8	1.96	.6	50	13
FLOAT-1.40	12	6.0	1.4	62	7	.83	.2	65	10	2.36	.5	38	10
FLOAT-1.60	12	8.8	1.3	44	8	1.14	.2	52	13	2.61	.5	32	10
TOTAL	12	15.9	2.5	0	0	2.48	.5	0	0	3.86	.6	0	0

		BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 11906 SIGMA: 274				POUNDS OF SO2/M BTU RAW: 6.5 SIGMA: 1.1			
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	12	37.4	18.4	63	18	13496	121	14	3	3.2	.7	50	12
FLOAT-1.40	12	83.1	5.0	17	5	13005	129	9	3	4.0	.7	39	12
FLOAT-1.60	12	94.3	1.7	6	2	12716	210	7	2	4.4	.8	32	12
TOTAL	12	100.0	0.0	0	0	11897	297	0	0	6.6	1.2	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	12	40.8	12.1	59	12	13605	85	14	3	3.1	.7	51	9
FLOAT-1.40	12	81.7	4.3	18	4	13136	128	10	2	3.8	.8	40	10
FLOAT-1.60	12	93.8	1.7	6	2	12830	167	8	2	4.3	.8	33	10
TOTAL	12	100.0	0.0	0	0	11913	264	0	0	6.4	1.1	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	12	32.1	10.5	68	10	13722	92	15	3	2.9	.9	56	12
FLOAT-1.40	12	76.1	4.9	24	5	13300	149	12	3	3.5	.7	45	10
FLOAT-1.60	12	92.6	2.5	7	2	12917	114	9	2	4.0	.7	37	10
TOTAL	12	100.0	0.0	0	0	11908	284	0	0	6.5	1.1	0	0

COALBED: NO. 6
STATE: ILLINOIS
NUMBER OF SAMPLES: 28
RAW COAL MOISTURE, PERCENT: 5.6
SIGMA: 2.7

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 15.3 SIGMA: 4.3				PYRITIC SULFUR, PERCENT RAW: 2.14 SIGMA: 1.1				TOTAL SULFUR, PERCENT RAW: 3.74 SIGMA: 1.5			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	28	4.5	.7	68	12	.57	.2	68	15	2.33	.8	34	13
FLOAT-1.40	28	6.9	1.0	51	15	.78	.3	57	18	2.51	.8	29	13
FLOAT-1.60	28	8.3	1.3	41	18	1.01	.4	46	19	2.71	.9	24	13
TOTAL	28	15.3	4.3	0	0	2.13	1.1	0	0	3.72	1.5	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	28	3.8	.7	72	12	.51	.2	70	18	2.29	.8	35	14
FLOAT-1.40	28	5.8	1.0	59	14	.68	.2	62	19	2.42	.8	32	14
FLOAT-1.60	28	7.5	1.3	47	17	.86	.3	53	19	2.57	.9	28	14
TOTAL	28	15.2	4.3	0	0	2.13	1.1	0	0	3.73	1.5	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	28	3.5	.7	75	10	.43	.1	75	13	2.23	.8	38	13
FLOAT-1.40	28	5.2	1.1	64	13	.58	.2	67	15	2.34	.8	34	13
FLOAT-1.60	28	7.3	1.4	49	15	.78	.3	58	16	2.47	.9	31	13
TOTAL	28	15.5	4.5	0	0	2.17	1.1	0	0	3.76	1.6	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 11923 SIGMA: 695				POUNDS OF SO2/M BTU RAW: 6.3 SIGMA: 2.8			
		AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	28	53.1	15.9	47	16	13446	284	13	6	3.5	1.2	41	14
FLOAT-1.40	28	86.5	4.6	14	5	13108	241	10	6	3.8	1.3	35	14
FLOAT-1.60	28	94.9	2.3	5	2	12906	274	8	5	4.2	1.5	30	14
TOTAL	28	100.0	0.0	0	0	11934	698	0	0	6.3	2.8	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	28	52.9	13.1	47	13	13541	242	14	6	3.4	1.2	43	14
FLOAT-1.40	28	84.7	4.6	15	5	13265	230	11	6	3.7	1.3	38	14
FLOAT-1.60	28	94.4	2.2	6	2	13029	266	9	6	4.0	1.4	34	15
TOTAL	28	100.0	0.0	0	0	11939	688	0	0	6.3	2.7	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	28	38.0	18.2	62	18	13585	251	15	6	3.3	1.2	45	13
FLOAT-1.40	28	78.2	7.3	22	7	13352	260	13	6	3.5	1.3	41	13
FLOAT-1.60	28	93.4	2.9	7	3	13047	304	10	5	3.8	1.4	37	13
TOTAL	28	100.0	0.0	0	0	11897	722	0	0	6.4	2.9	0	0

COALBED: NO. 6
STATE: 28 ILLINOIS
NUMBER OF SAMPLES: 35
RAW COAL MOISTURE, PERCENT: 5.0
SIGMA: 2.7

NO. 11
7 KENTUCKY (WEST)

PRODUCT	NO OF SAMPLES	ASH, PERCENT RAW: 14.7 SIGMA: 4.3 AVERAGE	SIGMA	REDUCTION	SIGMA	PYRITIC SULFUR, PERCENT RAW: 2.22 SIGMA: 1.0 AVERAGE	SIGMA	REDUCTION	SIGMA	TOTAL SULFUR, PERCENT RAW: 3.88 SIGMA: 1.4 AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	35	4.3	.8	68	12	.58	.2	69	14	2.42	.7	35	12
FLOAT-1.40	35	6.5	1.3	52	16	.81	.3	57	18	2.62	.8	29	13
FLOAT-1.60	35	7.8	1.6	43	18	1.02	.4	47	19	2.81	.9	24	13
TOTAL	35	14.7	4.3	0	0	2.20	1.0	0	0	3.86	1.4	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	35	3.7	.7	72	12	.52	.2	71	17	2.38	.7	36	13
FLOAT-1.40	35	5.5	1.0	59	14	.72	.2	61	18	2.54	.8	31	13
FLOAT-1.60	35	7.0	1.4	48	17	.90	.3	53	19	2.69	.9	28	13
TOTAL	35	14.6	4.3	0	0	2.21	1.0	0	0	3.87	1.4	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	35	3.4	.7	75	10	.44	.1	76	13	2.31	.7	38	12
FLOAT-1.40	35	5.0	1.0	64	13	.60	.2	68	15	2.43	.8	35	13
FLOAT-1.60	35	6.9	1.5	50	15	.81	.3	58	16	2.59	.8	31	13
TOTAL	35	14.8	4.5	0	0	2.24	1.1	0	0	3.90	1.5	0	0

PRODUCT	NO OF SAMPLES	BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0 AVERAGE	SIGMA	REDUCTION	SIGMA	BTU PER POUND RAW: 12052 SIGMA: 711 AVERAGE	SIGMA	%INCREASE	SIGMA	POUNDS OF SO2/M BTU RAW: 6.5 SIGMA: 2.6 AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	35	56.7	16.2	43	16	13522	300	12	6	3.6	1.1	41	13
FLOAT-1.40	35	87.6	4.8	12	5	13216	310	10	5	4.0	1.2	35	14
FLOAT-1.60	35	95.2	2.3	5	2	13031	356	8	5	4.3	1.4	30	14
TOTAL	35	100.0	0.0	0	0	12057	710	0	0	6.5	2.5	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	35	56.8	14.6	43	15	13603	254	13	6	3.5	1.1	43	14
FLOAT-1.40	35	86.1	5.1	14	5	13349	270	11	6	3.8	1.2	38	14
FLOAT-1.60	35	94.7	2.2	5	2	13135	325	9	5	4.1	1.3	33	14
TOTAL	35	100.0	0.0	0	0	12063	704	0	0	6.5	2.5	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	35	43.8	20.7	56	21	13648	261	14	6	3.4	1.1	45	13
FLOAT-1.40	35	80.1	7.7	20	8	13428	283	12	6	3.6	1.2	41	13
FLOAT-1.60	35	93.9	2.9	6	3	13150	349	10	5	3.9	1.3	37	13
TOTAL	35	100.0	0.0	0	0	12035	740	0	0	6.5	2.7	0	0

```
COALBED:   NO. 5
STATE:      ILLINOIS
NUMBER OF SAMPLES:   10
RAW COAL MOISTURE,PERCENT:  4.7
                     SIGMA:  2.7

                             ASH, PERCENT                      PYRITIC SULFUR, PERCENT              TOTAL SULFUR, PERCENT
                        RAW:  14.9     SIGMA:   4.8          RAW:  2.08     SIGMA:    .7          RAW:  3.92    SIGMA:     .8

PRODUCT      NO OF      AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  REDUCTION SIGMA
            SAMPLES

.........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..................................

FLOAT-1.30    10           5.7   2.0      58      21          .52    .2       72      14          2.49    .5      36      13
FLOAT-1.40    10           7.9   1.1      43      17          .84    .2       58      12          2.77    .5      29      10
FLOAT-1.60    10           9.4   1.3      33      18         1.17    .4       42      17          3.08    .7      21      10
TOTAL         10          14.9   5.0       0       0         2.09    .7        0       0          3.92    .8       0       0

...........................................................SAMPLE CRUSHED TO PASS 3/8 INCH....................................

FLOAT-1.30    10           4.7   1.6      64      19          .42    .1       77       9          2.46    .5      36      13
FLOAT-1.40    10           6.9   1.0      49      16          .69    .2       64       8          2.68    .5      31      11
FLOAT-1.60    10           8.8   1.4      36      17         1.00    .4       49      16          2.95    .6      24      11
TOTAL         10          14.6   4.9       0       0         2.03    .7        0       0          3.89    .8       0       0

...........................................................SAMPLE CRUSHED TO PASS 14 MESH.....................................

FLOAT-1.30    10           3.3    .8      76      10          .35    .1       81      11          2.28    .5      41      13
FLOAT-1.40    10           6.1    .8      56      13          .60    .2       70       7          2.54    .4      35      11
FLOAT-1.60    10           8.4   1.1      41      13          .89    .3       57      10          2.81    .5      28      10
TOTAL         10          15.1   5.0       0       0         2.12    .8        0       0          3.94    .8       0       0

                          BTU RECOVERY, PERCENT              BTU PER POUND                       POUNDS OF SO2/M BTU
                        RAW: 100.0     SIGMA:    0.0        RAW: 12046      SIGMA:  615          RAW:   6.5     SIGMA:    1.3

PRODUCT      NO OF      AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  %INCREASE SIGMA      AVERAGE SIGMA  %REDUCTION SIGMA
            SAMPLES

.........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..................................

FLOAT-1.30    10          50.8  15.7      49      16        13347    429      11       8           3.7    .8      41      15
FLOAT-1.40    10          86.5   5.2      13       5        13032    263       9       7           4.3    .8      34      13
FLOAT-1.60    10          95.3   2.1       5       2        12824    277       7       6           4.8   1.1      25      13
TOTAL         10         100.0   0.0       0       0        12039    641       0       0           6.5   1.4       0       0

...........................................................SAMPLE CRUSHED TO PASS 3/8 INCH....................................

FLOAT-1.30    10          46.2  11.2      54      11        13475    381      12       8           3.7    .8      42      15
FLOAT-1.40    10          84.2   5.2      16       5        13165    252       9       6           4.1    .8      36      13
FLOAT-1.60    10          95.1   1.9       5       2        12907    252       7       6           4.6   1.0      28      13
TOTAL         10         100.0   0.0       0       0        12083    627       0       0           6.5   1.4       0       0

...........................................................SAMPLE CRUSHED TO PASS 14 MESH.....................................

FLOAT-1.30    10          28.5  17.0      71      17        13674    255      14       7           3.3    .8      48      14
FLOAT-1.40    10          79.3   5.4      21       5        13277    233      11       7           3.8    .7      40      13
FLOAT-1.60    10          94.3   2.6       6       3        12952    199       8       6           4.3    .8      33      12
TOTAL         10         100.0   0.0       0       0        12015    642       0       0           6.6   1.4       0       0
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COALBED:    NO. 9
STATE:      KENTUCK, (WEST)
NUMBER OF SAMPLES:   14
RAW COAL MOISTURE,PERCENT:  3.9
                     SIGMA:  1.5

                              ASH, PERCENT                     PYRITIC SULFUR, PERCENT              TOTAL SULFUR, PERCENT
                          RAW:  12.0     SIGMA:   3.0        RAW:  2.28     SIGMA:    .4         RAW:  4.17     SIGMA:    .3
PRODUCT      NO OF
             SAMPLES      AVERAGE SIGMA  REDUCTION SIGMA     AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  REDUCTION SIGMA

..........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..................................

FLOAT-1.30     14            4.3    .5      63      7          .56    .1       74      6           2.58    .3      38      8
FLOAT-1.40     14            6.7    .6      41     13          .90    .2       59     10           2.90    .3      30      8
FLOAT-1.60     14            7.9    .8      32     15         1.19    .3       46     13           3.17    .3      24      8
TOTAL          14           12.0   3.1       0      0         2.25    .4        0      0           4.18    .3       0      0

..........................................................SAMPLE CRUSHED TO PASS 3/8 INCH......................................

FLOAT-1.30     14            3.7    .4      67      8          .48    .1       78      6           2.52    .3      39      8
FLOAT-1.40     14            6.0    .6      47     12          .77    .1       65      8           2.78    .3      33      8
FLOAT-1.60     14            7.3    .8      36     14         1.03    .2       53     11           3.00    .3      27      8
TOTAL          14           11.9   3.1       0      0         2.26    .4        0      0           4.16    .3       0      0

..........................................................SAMPLE CRUSHED TO PASS 14 MESH.......................................

FLOAT-1.30     14            3.2    .7      72      9          .45    .2       80      9           2.50    .3      40      8
FLOAT-1.40     14            5.4    .5      53     10          .69    .2       70      8           2.70    .3      35      8
FLOAT-1.60     14            7.2    .8      39     11          .95    .2       58     10           2.90    .3      30      8
TOTAL          14           12.2   3.1       0      0         2.32    .4        0      0           4.18    .3       0      0

                          BTU RECOVERY, PERCENT              BTU PER POUND                        POUNDS OF SO2/M BTU
                          RAW: 100.0     SIGMA:   0.0        RAW: 12612     SIGMA:  522          RAW:   6.6     SIGMA:    .6
PRODUCT      NO OF
             SAMPLES      AVERAGE SIGMA  REDUCTION SIGMA     AVERAGE SIGMA  %INCREASE SIGMA      AVERAGE SIGMA  %REDUCTION SIGMA

..........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..................................

FLOAT-1.30     14           51.8   10.6     48     11        13717   209        9      4           3.8     .4      43      8
FLOAT-1.40     14           89.0    3.1     11      3        13370   189        6      4           4.3     .4      34      9
FLOAT-1.60     14           96.1    1.6      4      2        13208   212        5      4           4.8     .4      27      9
TOTAL          14          100.0    0.0      0      0        12614   532        0      0           6.6     .7       0      0

..........................................................SAMPLE CRUSHED TO PASS 3/8 INCH......................................

FLOAT-1.30     14           54.8    9.5     45      9        13800   175        9      4           3.6     .4      44      8
FLOAT-1.40     14           88.0    3.2     12      3        13477   179        7      4           4.1     .3      37      9
FLOAT-1.60     14           95.7    1.6      4      2        13287   215        5      4           4.5     .4      31      9
TOTAL          14          100.0    0.0      0      0        12629   537        0      0           6.6     .7       0      0

..........................................................SAMPLE CRUSHED TO PASS 14 MESH.......................................

FLOAT-1.30     14           49.8   10.6     50     11        13680   171       10      4           3.6     .4      45      9
FLOAT-1.40     14           84.4    4.5     16      4        13555   178        8      4           4.0     .4      40      9
FLOAT-1.60     14           95.0    2.0      5      2        13306   222        6      3           4.4     .4      34      9
TOTAL          14          100.0    0.0      0      0        12591   536        0      0           6.7     .6       0      0
```

```
COALBED:  NO. 5                                   NO. V                                   NO. 9
STATE:     10 ILLINOIS                             8 INDIANA                              14 KENTUCKY (WEST)
NUMBER OF SAMPLES:   32
RAW COAL MOISTURE,PERCENT:  4.8
                    SIGMA:  2.2

                                 ASH, PERCENT                       PYRITIC SULFUR, PERCENT                  TOTAL SULFUR, PERCENT
                          RAW:  12.6      SIGMA:    4.2          RAW:  2.17     SIGMA:     .7             RAW:  4.00     SIGMA:     .7

 PRODUCT       NO OF       AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA  REDUCTION SIGMA          AVERAGE SIGMA  REDUCTION SIGMA
               SAMPLES

......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.................................

FLOAT-1.30      32             4.9    1.3       58       15         .57      .2       72       11          2.51      .4       37       11
FLOAT-1.40      32             7.2     .9       39       15         .89      .2       57       12          2.81      .4       29       10
FLOAT-1.60      32             8.4    1.3       29       16        1.20      .4       43       15          3.10      .5       22       10
TOTAL           32            12.6    4.2        0        0        2.17      .7        0        0          4.01      .7        0        0

......................................................SAMPLE CRUSHED TO PASS 3/8 INCH.....................................

FLOAT-1.30      32             4.2    1.1       63       14         .49      .1       75       11          2.46      .4       37       12
FLOAT-1.40      32             6.3     .9       45       15         .76      .2       62       11          2.69      .4       31       10
FLOAT-1.60      32             7.8    1.2       33       15        1.03      .3       50       15          2.94      .5       25       10
TOTAL           32            12.4    4.1        0        0        2.14      .7        0        0          3.98      .7        0        0

......................................................SAMPLE CRUSHED TO PASS 14 MESH......................................

FLOAT-1.30      32             3.2     .8       72       11         .42      .1       79       12          2.37      .4       40       11
FLOAT-1.40      32             5.7     .8       52       12         .66      .2       68       10          2.60      .4       34       10
FLOAT-1.60      32             7.6    1.2       37       13         .93      .3       55       12          2.83      .5       29       10
TOTAL           32            12.7    4.3        0        0        2.19      .7        0        0          4.02      .7        0        0

                             BTU RECOVERY, PERCENT                  BTU PER POUND                          POUNDS OF SO2/M BTU
                          RAW: 100.0      SIGMA:    0.0          RAW: 12474     SIGMA:  625              RAW:   6.5     SIGMA:   1.3

 PRODUCT       NO OF       AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA  %INCREASE SIGMA          AVERAGE SIGMA  %REDUCTION SIGMA
               SAMPLES

......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.................................

FLOAT-1.30      32            52.2   13.7       48       14       13565    323         9        6           3.7      .7       41       12
FLOAT-1.40      32            88.3    5.4       12        5       13241    255         6        5           4.3      .7       33       11
FLOAT-1.60      32            96.0    2.0        4        2       13069    288         5        5           4.8      .9       26       11
TOTAL           32           100.0    0.0        0        0       12469    633         0        0           6.5     1.3        0        0

......................................................SAMPLE CRUSHED TO PASS 3/8 INCH.....................................

FLOAT-1.30      32            52.3   12.6       48       13       13669    285        10        6           3.6      .6       42       13
FLOAT-1.40      32            86.7    5.3       13        5       13361    243         7        5           4.0      .6       35       12
FLOAT-1.60      32            95.7    2.0        4        2       13152    277         5        5           4.5      .8       29       12
TOTAL           32           100.0    0.0        0        0       12497    620         0        0           6.4     1.3        0        0

......................................................SAMPLE CRUSHED TO PASS 14 MESH......................................

FLOAT-1.30      32            40.6   16.4       59       16       13804    215        11        6           3.4      .6       46       12
FLOAT-1.40      32            82.5    6.1       18        6       13454    230         8        5           3.9      .6       39       11
FLOAT-1.60      32            95.0    2.4        5        2       13178    265         6        4           4.3      .7       33       11
TOTAL           32           100.0    0.0        0        0       12454    642         0        0           6.5     1.3        0        0
```

```
                         WESTERN MIDWEST REGION
          NUMBER OF SAMPLES:  44
          RAW COAL MOISTURE,PERCENT:  4.0
                            SIGMA:    3.7

                                  ASH, PERCENT                   PYRITIC SULFUR, PERCENT              TOTAL SULFUR, PERCENT
                               RAW:  16.2      SIGMA:    6.6       RAW:  3.58     SIGMA:    1.9        RAW:  5.25     SIGMA:    2.3

   PRODUCT      NO OF          AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  REDUCTION SIGMA
                SAMPLES

..................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...............................................

  FLOAT-1.30     44               5.5    1.6       63      12        1.14    .6       66      11        2.93    1.3       42      15
  FLOAT-1.40     44               7.7    2.3       49      13        1.66    .8       50      16        3.45    1.4       31      14
  FLOAT-1.60     44               9.6    3.2       38      14        2.13   1.0       37      17        3.89    1.5       23      13
  TOTAL          44              16.2    6.7        0       0        3.58   1.9        0       0        5.26    2.3        0       0

....................................................SAMPLE CRUSHED TO PASS 3/8 INCH.................................................

  FLOAT-1.30     44               4.4    1.2       69      10         .94    .4       71      11        2.77    1.3       44      15
  FLOAT-1.40     44               6.4    2.0       56      12        1.39    .7       58      16        3.20    1.3       35      14
  FLOAT-1.60     44               8.3    3.0       45      13        1.80    .9       46      17        3.59    1.4       28      14
  TOTAL          44              16.0    6.7        0       0        3.53   1.9        0       0        5.19    2.3        0       0

....................................................SAMPLE CRUSHED TO PASS 14 MESH.................................................

  FLOAT-1.30     44               3.6    1.2       75       9         .75    .4       79      11        2.61    1.2       48      16
  FLOAT-1.40     44               5.6    1.8       62      11        1.16    .6       67      15        3.00    1.2       40      15
  FLOAT-1.60     44               7.7    2.6       50      11        1.59    .8       55      17        3.39    1.3       33      14
  TOTAL          44              16.4    6.7        0       0        3.63   1.9        0       0        5.30    2.3        0       0

                                BTU RECOVERY, PERCENT             BTU PER POUND                       POUNDS OF SO2/M BTU
                              RAW: 100.0     SIGMA:    0.0       RAW: 12072     SIGMA: 1223           RAW:    9.0     SIGMA:    4.5

   PRODUCT      NO OF          AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  %INCREASE SIGMA      AVERAGE SIGMA  %REDUCTION SIGMA
                SAMPLES

..................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...............................................

  FLOAT-1.30     44              45.5   24.8       54      25       13613    747       14       9         4.4    2.1       48      15
  FLOAT-1.40     44              79.3   12.6       21      13       13292    736       11       8         5.3    2.2       38      14
  FLOAT-1.60     44              92.5    4.5        6       5       13026    829        8       7         6.1    2.5       29      13
  TOTAL          44             100.0    0.0        0       0       12069   1233        0       0         9.0    4.6        0       0

....................................................SAMPLE CRUSHED TO PASS 3/8 INCH.................................................

  FLOAT-1.30     44              47.2   22.7       53      23       13765    649       15       9         4.1    2.0       51      15
  FLOAT-1.40     44              79.6   11.4       20      11       13471    676       12       9         4.8    2.0       42      14
  FLOAT-1.60     44              91.7    4.6        8       5       13209    776       10       7         5.5    2.3       34      14
  TOTAL          44             100.0    0.0        0       0       12101   1231        0       0         8.9    4.5        0       0

....................................................SAMPLE CRUSHED TO PASS 14 MESH.................................................

  FLOAT-1.30     44              38.4   22.6       62      23       13875    602       16      10         3.8    1.8       55      15
  FLOAT-1.40     44              75.7   12.0       24      12       13584    630       14       9         4.5    1.8       47      15
  FLOAT-1.60     44              90.3    5.3       10       5       13293    733       11       8         5.2    2.1       40      14
  TOTAL          44             100.0    0.0        0       0       12045   1235        0       0         9.1    4.6        0       0
```

WESTERN REGION
NUMBER OF SAMPLES: 44
RAW COAL MOISTURE,PERCENT: 8.5
SIGMA: 5.4

		ASH, PERCENT RAW: 8.9 SIGMA: 4.3				PYRITIC SULFUR, PERCENT RAW: .23 SIGMA: .3				TOTAL SULFUR, PERCENT RAW: .68 SIGMA: .3			
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	44	4.1	1.3	50	16	.09	.1	40	30	.55	.2	12	19
FLOAT-1.40	44	5.7	2.1	35	14	.10	.1	32	28	.56	.2	10	18
FLOAT-1.60	44	6.9	2.7	22	14	.11	.1	29	26	.57	.2	10	18
TOTAL	44	9.3	4.6	0	0	.23	.3	0	0	.68	.3	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	44	3.6	1.1	56	15	.08	.0	44	30	.55	.2	11	18
FLOAT-1.40	44	5.0	1.8	41	14	.09	.0	38	28	.55	.2	11	18
FLOAT-1.60	44	6.3	2.6	26	14	.10	.1	34	26	.56	.2	10	17
TOTAL	44	9.0	4.5	0	0	.23	.3	0	0	.67	.3	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	34	3.0	.9	61	12	.07	.0	54	28	.53	.2	16	19
FLOAT-1.40	34	4.1	1.4	49	12	.07	.0	50	26	.53	.2	15	19
FLOAT-1.60	34	5.5	2.1	33	13	.08	.0	45	25	.54	.2	15	19
TOTAL	34	8.3	3.4	0	0	.25	.3	0	0	.69	.4	0	0

		BTU RECOVERY, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12437 SIGMA: 803				POUNDS OF SO2/M BTU RAW: 1.1 SIGMA: .6			
PRODUCT	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
FLOAT-1.30	44	60.8	25.1	39	25	13091	637	6	5	.8	.3	16	18
FLOAT-1.40	44	91.9	5.3	8	5	12872	651	4	4	.9	.3	14	18
FLOAT-1.60	44	98.0	1.8	2	2	12701	683	3	3	.9	.3	12	18
TOTAL	44	100.0	0.0	0	0	12373	833	0	0	1.1	.6	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
FLOAT-1.30	44	55.2	23.3	45	23	13171	632	6	5	.8	.3	16	17
FLOAT-1.40	44	89.3	6.5	11	6	12972	633	5	4	.9	.3	15	18
FLOAT-1.60	44	97.6	1.9	2	2	12779	672	3	3	.9	.3	13	17
TOTAL	44	100.0	0.0	0	0	12408	823	0	0	1.1	.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
FLOAT-1.30	34	45.7	27.5	54	27	13318	668	6	3	.8	.3	21	18
FLOAT-1.40	34	87.7	7.9	12	8	13161	648	5	3	.8	.3	19	18
FLOAT-1.60	34	97.5	1.8	3	2	12967	679	3	2	.8	.3	17	18
TOTAL	34	100.0	0.0	0	0	12559	744	0	0	1.1	.6	0	0

SUMMARY

```
NUMBER OF SAMPLES:  455
RAW COAL MOISTURE,PERCENT:  3.2
                  SIGMA:    3.4

                          ASH, PERCENT                  PYRITIC SULFUR, PERCENT            TOTAL SULFUR, PERCENT
                      RAW:  14.0    SIGMA:   6.3        RAW:  1.91    SIGMA:   1.5         RAW:  3.02    SIGMA:   1.9

PRODUCT      NO OF     AVERAGE SIGMA  REDUCTION SIGMA     AVERAGE SIGMA  REDUCTION SIGMA    AVERAGE SIGMA  REDUCTION SIGMA
             SAMPLES

...........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..................................

FLOAT-1.30    452           3.9    1.3        67     15        .45    .4        69     22        1.62   1.0        38     23
FLOAT-1.40    455           6.4    2.0        49     17        .78    .6        52     21        1.94   1.2        28     19
FLOAT-1.60    455           8.3    2.8        36     18       1.04    .8        40     20        2.19   1.4        22     17
TOTAL         455          14.1    6.4         0      0       1.89   1.5         0      0        3.00   1.9         0      0

...........................................................SAMPLE CRUSHED TO PASS 3/8 INCH.......................................

FLOAT-1.30    452           3.5    1.0        71     13        .37    .3        73     24        1.56   1.0        40     24
FLOAT-1.40    455           5.7    1.8        54     16        .63    .5        60     24        1.79   1.1        33     22
FLOAT-1.60    455           7.5    2.7        42     17        .85    .7        50     21        2.00   1.3        27     20
TOTAL         455          14.0    6.4         0      0       1.88   1.5         0      0        2.98   1.9         0      0

...........................................................SAMPLE CRUSHED TO PASS 14 MESH........................................

FLOAT-1.30    440           3.0    1.0        76     11        .31    .3        79     18        1.51    .9        44     23
FLOAT-1.40    445           5.0    1.6        60     13        .50    .4        69     20        1.69   1.0        38     22
FLOAT-1.60    445           7.1    2.4        45     15        .72    .6        59     19        1.88   1.2        33     20
TOTAL         445          14.1    6.3         0      0       1.95   1.5         0      0        3.07   1.9         0      0

                        BTU RECOVERY, PERCENT               BTU PER POUND                    POUNDS OF SO2/M BTU
                      RAW: 100.0    SIGMA:   0.0        RAW: 12574    SIGMA: 1058          RAW:   4.9    SIGMA:   3.4

PRODUCT      NO OF     AVERAGE SIGMA  REDUCTION SIGMA     AVERAGE SIGMA  %INCREASE SIGMA    AVERAGE SIGMA  %REDUCTION SIGMA
             SAMPLES

...........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..................................

FLOAT-1.30    452          46.1   23.8        54     24      14057    707        12      9         2.3   1.5        44     22
FLOAT-1.40    455          82.9   12.9        17     13      13685    684         9      8         2.9   1.8        34     19
FLOAT-1.60    455          94.2    4.6         6      5      13415    717         7      7         3.3   2.1        27     17
TOTAL         455         100.0    0.0         0      0      12563   1064         0      0         4.9   3.4         0      0

...........................................................SAMPLE CRUSHED TO PASS 3/8 INCH.......................................

FLOAT-1.30    452          49.4   21.5        51     22      14123    674        13      9         2.2   1.5        46     23
FLOAT-1.40    455          83.0   11.3        17     11      13793    658        10      8         2.6   1.7        38     21
FLOAT-1.60    455          93.8    4.5         6      4      13530    698         8      8         3.0   2.0        32     19
TOTAL         455         100.0    0.0         0      0      12577   1057         0      0         4.9   3.3         0      0

...........................................................SAMPLE CRUSHED TO PASS 14 MESH........................................

FLOAT-1.30    440          44.1   20.4        56     20      14223    641        14      9         2.1   1.4        50     22
FLOAT-1.40    445          79.6   12.2        20     12      13913    625        11      8         2.5   1.6        44     21
FLOAT-1.60    445          93.1    4.8         7      5      13605    667         9      7         2.8   1.8        38     20
TOTAL         445         100.0    0.0         0      0      12582   1055         0      0         5.0   3.4         0      0
```

APPENDIX C.--A STATISTICAL EVALUATION OF THE COMPOSITED WASHABILITY DATA INTERPOLATED AT VARIOUS LEVELS OF BTU RECOVERY BY REGION AND COALBED[1] [2]

Region	Coalbed	Page
Northern Appalachian	Summary	296
	Sewickley	297
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	Upper Freeport	302
	Lower Freeport	304
	Upper Kittanning	306
	Middle Kittanning	307
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Southern Appalachian	Summary	312
Alabama	Summary	313
Eastern Midwest	Summary	314
	Indiana No. VI	315
	Kentucky (west) No. 12	315
	Illinois No. 6	316
	Illinois No. 6	317
	Kentucky (west) No. 11	317
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	Indiana No. V	320
	Kentucky (west) No. 9	320
Western Midwest	Summary	321
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[1] All numbers in the tables are presented on a moisture-free basis unless otherwise noted. The raw coal moisture as presented in the tables is the moisture contained in the sample after being air dried at the coal preparation laboratory. The air dry loss is not included in the moisture determination.

[2] Data are included only for coalbeds where 10 or more samples were collected.

APPENDIX C.--A STATISTICAL EVALUATION OF THE COMPOSITED WASHABILITY DATA INTERPOLATED AT VARIOUS LEVELS OF BTU RECOVERY BY REGION AND COALBED[1] [a]

NORTHERN APPALACHIAN REGION

NUMBER OF SAMPLES: 227
RAW COAL MOISTURE, PERCENT: 1.7
SIGMA: 1.4

		ASH, PERCENT RAW: 15.1 SIGMA: 6.5				PYRITIC SULFUR, PERCENT RAW: 2.01 SIGMA: 1.3				TOTAL SULFUR, PERCENT RAW: 3.01 SIGMA: 1.6			
BTU RECOVERY	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
						SAMPLE CRUSHED TO PASS 1-1/2 INCHES							
50.0	156	5.2	2.3	67	13	.54	.5	71	19	1.60	.9	42	21
60.0	189	5.5	2.4	63	13	.59	.5	69	19	1.63	.9	41	20
70.0	212	6.0	2.7	60	14	.67	.6	65	19	1.71	1.0	40	20
80.0	224	7.0	3.1	53	14	.81	.6	59	19	1.83	1.0	36	19
90.0	226	8.6	3.6	42	14	1.06	.8	47	18	2.06	1.2	28	16
100.0	227	15.2	6.6	0	0	2.00	1.3	0	0	3.00	1.7	0	0
						SAMPLE CRUSHED TO PASS 3/8 INCH							
50.0	119	4.8	2.1	70	11	.42	.4	75	19	1.50	.9	42	24
60.0	167	4.9	2.3	68	12	.45	.4	76	17	1.51	.9	45	22
70.0	199	5.4	2.5	64	13	.50	.5	74	17	1.54	.9	44	22
80.0	221	6.1	2.9	58	14	.59	.5	69	18	1.61	1.0	42	21
90.0	227	7.8	3.6	47	14	.81	.7	59	20	1.81	1.1	36	20
100.0	227	15.1	6.6	0	0	1.99	1.3	0	0	2.99	1.6	0	0
						SAMPLE CRUSHED TO PASS 14 MESH							
50.0	135	4.2	1.8	75	9	.31	.3	81	16	1.37	.9	47	24
60.0	179	4.4	2.0	72	10	.33	.3	81	15	1.37	.8	49	23
70.0	213	4.8	2.3	68	11	.37	.4	80	15	1.40	.8	49	22
80.0	225	5.8	2.7	61	12	.45	.4	76	16	1.48	.9	46	21
90.0	225	7.7	3.6	49	12	.66	.6	67	18	1.67	1.0	41	20
100.0	227	15.1	6.4	0	0	2.02	1.3	0	0	3.03	1.7	0	0

		WEIGHT, PERCENT RAW: 100.0 SIGMA: 0.0				BTU PER POUND RAW: 12693 SIGMA: 1076				POUNDS OF SO2/M BTU RAW: 4.8 SIGMA: 2.7			
BTU RECOVERY	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
						SAMPLE CRUSHED TO PASS 1-1/2 INCHES							
50.0	156	43.4	3.4	57	3	14088	580	14	10	2.3	1.4	49	20
60.0	189	52.9	3.8	47	4	14068	600	13	9	2.3	1.4	48	19
70.0	212	62.6	4.2	37	4	14013	622	12	9	2.5	1.5	46	18
80.0	224	72.7	4.5	27	5	13885	649	10	8	2.7	1.6	41	17
90.0	226	83.5	4.6	17	5	13652	722	8	7	3.1	1.8	34	16
100.0	227	100.0	0.0	0	0	12686	1085	0	0	4.8	2.7	0	0
						SAMPLE CRUSHED TO PASS 3/8 INCH							
50.0	119	43.1	3.5	57	3	14131	583	15	11	2.2	1.4	50	22
60.0	167	52.3	3.9	48	4	14140	593	14	10	2.2	1.4	51	21
70.0	199	62.0	4.3	38	4	14106	609	13	9	2.2	1.4	50	20
80.0	221	72.1	4.7	28	5	14007	632	11	8	2.3	1.5	48	19
90.0	227	82.9	4.7	17	5	13760	723	9	7	2.7	1.7	41	18
100.0	227	100.0	0.0	0	0	12693	1082	0	0	4.8	2.7	0	0
						SAMPLE CRUSHED TO PASS 14 MESH							
50.0	135	42.8	3.2	57	3	14252	593	16	10	1.9	1.3	54	21
60.0	179	52.1	3.5	48	4	14243	596	15	9	2.0	1.3	55	20
70.0	213	62.0	3.9	38	4	14199	604	13	8	2.0	1.3	54	20
80.0	225	71.9	4.3	28	4	14057	631	11	8	2.1	1.4	52	19
90.0	225	82.7	4.1	17	4	13787	747	9	6	2.5	1.6	46	18
100.0	227	100.0	0.0	0	0	12700	1067	0	0	4.8	2.7	0	0

```
COALBED:   SEWICKLEY
STATE:     OHIO
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE.PERCENT:  2.4
                  SIGMA:    .6

                         ASH. PERCENT                  PYRITIC SULFUR. PERCENT            TOTAL SULFUR. PERCENT
                 RAW:  14.9     SIGMA:   4.4          RAW:  2.42     SIGMA:    .8        RAW:  4.45     SIGMA:   1.5

  BTU     NO OF        AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA   REDUCTION SIGMA
RECOVERY SAMPLES
.........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.......................................
  50.0      10            7.1    2.3      52     9           .60     .4      69     10           3.08    1.3        33     8
  60.0      10            7.9    2.6      47     7           .95     .5      63      9           3.20    1.4        30     7
  70.0      10            8.9    2.8      40     6          1.12     .5      55      8           3.34    1.4        27     7
  80.0      10           10.1    2.9      32     5          1.32     .6      47      6           3.50    1.4        23     7
  90.0      10           11.4    2.9      22     5          1.54     .6      38      8           3.67    1.5        19     8
 100.0      10           14.8    4.2       0     0          2.41     .8       0      0           4.45    1.6         0     0
...........................................................SAMPLE CRUSHED TO PASS 3/8 INCH.......................................
  50.0      10            6.2    2.9      59     8           .77     .7      70     16           3.07    1.4        33    10
  60.0      10            7.1    3.2      53     8           .87     .7      66     15           3.11    1.4        33    11
  70.0      10            8.2    3.3      46     8           .95     .7      64     17           3.21    1.5        31    11
  80.0      10            9.5    3.4      37     7          1.13     .8      57     15           3.30    1.5        29    11
  90.0      10           11.1    3.6      26     6          1.39     .7      45     11           3.52    1.5        23     9
 100.0      10           15.0    4.6       0     0          2.44     .9       0      0           4.45    1.6         0     0
...........................................................SAMPLE CRUSHED TO PASS 14 MESH.......................................
  50.0      10            5.2    2.5      66     7           .48     .4      81     10           2.88    1.4        38    12
  60.0      10            6.2    2.7      59     7           .56     .4      78     12           2.94    1.4        37    12
  70.0      10            7.3    2.8      51     7           .67     .5      74     13           3.01    1.4        35    12
  80.0      10            8.7    3.0      41     7           .80     .5      69     15           3.08    1.4        33    12
  90.0      10           10.4    3.3      30     6          1.05     .6      58     13           3.23    1.4        30    10
 100.0      10           14.9    4.7       0     0          2.41     .8       0      0           4.45    1.6         0     0

                       WEIGHT. PERCENT                      BTU PER POUND                     POUNDS OF SO2/M BTU
                 RAW: 100.0     SIGMA:   0.0          RAW: 12251    SIGMA:    751        RAW:    7.4    SIGMA:   2.8

  BTU     NO OF        AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA  %INCREASE SIGMA      AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
.......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.......................................
  50.0      10           45.3    1.2      55     1         13269    382       8      4            4.6    2.1        39     6
  60.0      10           55.2    1.4      45     1         13157    415       8      4            4.9    2.2        36     6
  70.0      10           65.3    1.5      35     2         13039    456       7      3            5.1    2.2        32     6
  80.0      10           75.7    1.6      24     2         12898    496       5      3            5.5    2.3        27     6
  90.0      10           86.5    1.8      13     2         12735    534       4      2            5.8    2.4        23     7
 100.0      10          100.0    0.0       0     0         12258    741       0      0            7.4    2.8         0     0
..........................................................SAMPLE CRUSHED TO PASS 3/8 INCH.......................................
  50.0      10           44.9    1.3      55     1         13371    487       9      4            4.6    2.1        39     8
  60.0      10           54.6    1.5      45     1         13262    511       9      4            4.7    2.3        39    10
  70.0      10           64.7    1.6      35     2         13143    552       8      3            4.9    2.4        36    10
  80.0      10           75.2    1.8      25     2         12989    596       6      3            5.1    2.5        33    10
  90.0      10           86.1    1.8      14     2         12787    640       5      2            5.6    2.6        27     8
 100.0      10          100.0    0.0       0     0         12241    785       0      0            7.4    2.9         0     0
...........................................................SAMPLE CRUSHED TO PASS 14 MESH.......................................
  50.0      10           44.7    1.6      55     2         13578    483      11      4            4.3    2.1        45    11
  60.0      10           54.3    1.8      46     2         13442    495      10      4            4.4    2.2        43    11
  70.0      10           64.3    1.9      36     2         13294    526       9      4            4.6    2.2        41    11
  80.0      10           74.6    2.1      25     2         13113    561       7      3            4.8    2.3        38    11
  90.0      10           85.6    2.0      14     2         12877    619       5      2            5.1    2.4        33    10
 100.0      10          100.0    0.0       0     0         12254    807       0      0            7.4    2.9         0     0
```

```
COALBED:SEWICKLEY                       SEWICKLEY                      SEWICKLEY                     SEWICKLEY
STATES: 2 MARYLAND                      10 OHIO                        2 PA. (BITUMINOUS)            1 WEST VIRGINIA
NUMBER OF SAMPLES: 15
RAW COAL MOISTURE,PERCENT:  2.0
                   SIGMA:   .8

                         ASH, PERCENT                   PYRITIC SULFUR, PERCENT            TOTAL SULFUR, PERCENT
                    RAW:  16.3     SIGMA:   7.5      RAW:  2.09     SIGMA:   1.0      RAW:  3.78     SIGMA:   1.8

   BTU     NO OF     AVERAGE SIGMA  REDUCTION SIGMA     AVERAGE SIGMA  REDUCTION SIGMA    AVERAGE SIGMA   REDUCTION SIGMA
RECOVERY SAMPLES
..................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..........................................
  50.0      15          6.2    2.4      58      14        .65     .4      72      11       2.54    1.4       34      10
  60.0      15          7.0    2.6      54      14        .76     .5      66      11       2.63    1.4       31       9
  70.0      15          8.0    2.8      47      14        .90     .6      61      11       2.75    1.5       28       9
  80.0      15          9.1    3.0      40      16       1.08     .6      52      12       2.89    1.5       24       8
  90.0      15         10.6    3.1      30      15       1.28     .7      42      14       3.06    1.6       20       9
 100.0      15         16.4    7.7       0       0       2.09    1.0       0       0       3.78    1.8        0       0
....................................................SAMPLE CRUSHED TO PASS 3/8 INCH............................................
  50.0      14          5.8    2.6      63      11        .64     .6      72      15       2.62    1.4       35      11
  60.0      15          6.4    2.9      59      12        .69     .6      70      15       2.56    1.5       33      12
  70.0      15          7.4    3.2      53      13        .74     .7      69      16       2.63    1.5       31      12
  80.0      15          8.6    3.4      44      13        .90     .7      61      15       2.74    1.5       28      12
  90.0      15         10.7    4.5      32      12       1.14     .7      49      16       2.93    1.6       23      11
 100.0      15         16.3    7.5       0       0       2.10    1.1       0       0       3.78    1.8        0       0
....................................................SAMPLE CRUSHED TO PASS 14 MESH.............................................
  50.0      14          5.0    2.3      69       9        .40     .3      82      10       2.46    1.4       40      13
  60.0      14          5.9    2.5      63      10        .47     .4      79      11       2.51    1.4       39      13
  70.0      15          6.8    2.8      56      11        .54     .4      76      13       2.48    1.4       36      13
  80.0      15          8.1    3.1      48      12        .66     .5      71      15       2.55    1.4       33      13
  90.0      15         10.0    3.8      36      12        .87     .5      61      15       2.68    1.5       29      12
 100.0      15         16.4    7.7       0       0       2.10    1.0       0       0       3.78    1.8        0       0

                        WEIGHT, PERCENT                    BTU PER POUND                POUNDS OF SO2/M BTU
                    RAW: 100.0     SIGMA:   0.0      RAW: 12230     SIGMA:  1219      RAW:   6.2     SIGMA:   3.0

   BTU     NO OF     AVERAGE SIGMA  REDUCTION SIGMA     AVERAGE SIGMA  %INCREASE SIGMA    AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
.................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...........................................
  50.0      15         44.1    3.9      56       4      13593    642      12      12        3.8    2.2       41      10
  60.0      15         53.5    4.6      46       5      13488    666      11      12        3.9    2.3       38      10
  70.0      15         63.4    5.4      37       5      13378    695      10      11        4.2    2.4       35       9
  80.0      15         73.5    6.1      26       6      13251    733       9      11        4.5    2.5       31       8
  90.0      15         84.2    6.4      16       6      13046    775       7      10        4.8    2.6       25       8
 100.0      15        100.0    0.0       0       0      12223   1243       0       0        6.2    3.1        0       0
...................................................SAMPLE CRUSHED TO PASS 3/8 INCH.............................................
  50.0      14         43.7    3.5      56       4      13583    590      13      11        3.9    2.2       43      10
  60.0      15         53.3    4.2      47       4      13575    708      12      10        3.8    2.3       40      12
  70.0      15         63.1    4.8      37       5      13459    739      11      10        4.0    2.4       38      12
  80.0      15         73.3    5.4      27       5      13315    785      10      10        4.2    2.5       35      11
  90.0      15         84.4    4.8      16       5      13040    940       7       7        4.6    2.6       28       9
 100.0      15        100.0    0.0       0       0      12243   1245       0       0        6.2    3.1        0       0
...................................................SAMPLE CRUSHED TO PASS 14 MESH..............................................
  50.0      14         43.5    3.6      56       4      13759    572      15      11        3.6    2.1       48      11
  60.0      14         52.8    4.2      47       4      13624    584      14      11        3.7    2.2       46      11
  70.0      15         62.7    4.8      37       5      13577    708      12      10        3.7    2.2       42      12
  80.0      15         72.8    5.4      27       5      13399    748      10      10        3.9    2.3       40      12
  90.0      15         83.6    5.5      16       5      13138    846       8       8        4.2    2.4       35      10
 100.0      15        100.0    0.0       0       0      12223   1256       0       0        6.2    3.1        0       0
```

```
COALBED:   PITTSBURGH
STATE:     OHIO
NUMBER OF SAMPLES: 18
RAW COAL MOISTURE,PERCENT:  2.2
                   SIGMA:  1.1

                          ASH, PERCENT                        PYRITIC SULFUR, PERCENT                 TOTAL SULFUR, PERCENT
                    RAW:  15.9      SIGMA:    7.6          RAW:  2.69     SIGMA:     .8            RAW:  4.19     SIGMA:     .9

  BTU     NO OF        AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA   REDUCTION SIGMA
RECOVERY SAMPLES
..........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...........................................
  50.0      18            4.8    1.1      66       9            .86     .2      67       8          2.53     .5        39       6
  60.0      18            5.2    1.3      64      10           1.01     .3      61       8          2.67     .6        36       7
  70.0      18            5.7    1.7      61       9           1.18     .4      56       9          2.85     .6        32       7
  80.0      18            6.7    2.0      54      10           1.41     .4      48      11          3.08     .7        27       9
  90.0      18            8.1    2.4      45      11           1.77     .5      34       9          3.43     .7        18       8
 100.0      18           16.0    7.7       0       0           2.69     .8       0       0          4.20    1.0         0       0
............................................................SAMPLE CRUSHED TO PASS 3/8 INCH............................................
  50.0      16            4.4     .8      70       9            .72     .2      73       7          2.46     .5        42       6
  60.0      18            4.7    1.0      67       9            .79     .3      70       8          2.46     .5        40       7
  70.0      18            5.1    1.4      65       8            .96     .3      64       8          2.63     .6        36       7
  80.0      18            6.0    1.7      59       9           1.16     .4      56      10          2.84     .7        32       8
  90.0      18            7.5    2.3      49      10           1.53     .5      42      10          3.19     .7        23       9
 100.0      18           15.9    7.7       0       0           2.63     .7       0       0          4.14     .9         0       0
............................................................SAMPLE CRUSHED TO PASS 14 MESH.............................................
  50.0      15            4.4    1.1      72       7            .62     .3      79       4          2.41     .5        45       6
  60.0      16            4.7    1.3      69       7            .72     .3      75       5          2.44     .5        44       6
  70.0      17            4.9    1.9      68       7            .82     .4      72       8          2.52     .6        41       7
  80.0      18            6.0    2.2      61       7           1.03     .5      64      10          2.69     .7        37       8
  90.0      18            7.9    3.5      49       7           1.38     .6      51      11          2.98     .8        30       8
 100.0      18           15.9    7.8       0       0           2.75     .8       0       0          4.24    1.0         0       0

                        WEIGHT, PERCENT                         BTU PER POUND                        POUNDS OF SO2/M BTU
                    RAW: 100.0      SIGMA:    0.0          RAW: 12177      SIGMA:   1228           RAW:    7.0     SIGMA:    1.9

  BTU     NO OF        AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  %INCREASE SIGMA        AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
.........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES............................................
  50.0      18           43.5    3.6      56       4          13693    356      14      11           3.7     .8        46       6
  60.0      18           52.7    4.2      47       4          13619    371      13      11           3.9     .8        43       6
  70.0      18           62.1    4.9      38       5          13536    406      12      10           4.2    1.0        40       6
  80.0      18           72.0    5.5      28       5          13444    450      11      10           4.6    1.2        34       7
  90.0      18           82.2    6.0      18       6          13289    523      10       9           5.2    1.2        25       6
 100.0      18          100.0    0.0       0       0          12171   1249       0       0           7.0    2.0         0       0
...........................................................SAMPLE CRUSHED TO PASS 3/8 INCH.............................................
  50.0      16           43.3    3.9      57       4          13800    333      15      12           3.6     .7        49       6
  60.0      18           52.5    4.4      48       4          13718    349      14      11           3.6     .8        47       6
  70.0      18           61.7    5.0      38       5          13636    378      13      11           3.8     .9        44       6
  80.0      18           71.5    5.6      29       6          13547    408      12      11           4.2    1.1        39       5
  90.0      18           81.8    6.1      18       6          13373    510      11       9           4.8    1.2        30       6
 100.0      18          100.0    0.0       0       0          12184   1251       0       0           6.9    1.9         0       0
...........................................................SAMPLE CRUSHED TO PASS 14 MESH..............................................
  50.0      15           42.7    3.7      57       4          13788    384      16      12           3.5     .8        53       6
  60.0      16           51.8    4.2      48       4          13740    393      15      11           3.7     .8        50       5
  70.0      17           61.4    4.8      39       5          13683    440      14      11           3.7    1.0        49       5
  80.0      18           71.4    5.2      29       5          13565    489      12      10           4.0    1.1        44       5
  90.0      18           82.1    4.9      18       5          13312    715      10       7           4.5    1.3        36       6
 100.0      18          100.0    0.0       0       0          12175   1256       0       0           7.1    1.9         0       0
```

```
COALBED:   PITTSBURGH
STATE:     WEST VIRGINIA
NUMBER OF SAMPLES: 16
RAW COAL MOISTURE,PERCENT:  1.2
                    SIGMA:   .3

                      ASH, PERCENT                    PYRITIC SULFUR, PERCENT             TOTAL SULFUR, PERCENT
                RAW:  11.5     SIGMA:    6.1      RAW:  2.07     SIGMA:     .9        RAW:  3.64     SIGMA:   1.1

   BTU    NO OF      AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA   REDUCTION SIGMA
RECOVERY SAMPLES
..........................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..........................................
  50.0      8          4.2    .6        62      12        .70    .3       74      9        2.60    .6         40      12
  60.0     11          4.6    .8        57      12        .72    .4       69     11        2.41    .8         37      11
  70.0     16          4.8    .8        54      11        .65    .4       68     13        2.31    .7         34      13
  80.0     16          5.4    .9        46      11        .82    .5       61     16        2.45    .9         31      14
  90.0     16          6.3   1.1        40      12       1.13    .6       45     18        2.75    .9         23      14
 100.0     16         11.4   6.2         0       0       2.06    .9        0      0        3.60   1.1          0       0
............................................SAMPLE CRUSHED TO PASS 3/8 INCH............................................
  50.0      6          4.2    .4        65      14        .53    .1       81      6        2.37    .5         46      12
  60.0      9          4.1    .5        63      11        .57    .2       77      9        2.53    .6         41      12
  70.0     13          4.5    .8        59      10        .58    .3       73     11        2.25    .8         40      13
  80.0     16          5.1    .8        52      10        .65    .4       69     15        2.33    .8         35      13
  90.0     16          6.2   1.4        42      11        .98    .6       54     17        2.64    .9         27      13
 100.0     16         11.6   6.3         0       0       2.09   1.0        0      0        3.66   1.2          0       0
............................................SAMPLE CRUSHED TO PASS 14 MESH............................................
  50.0      1          4.2   0.0        87       0        .63   0.0       76      0        2.66   0.0         34       0
  60.0      7          3.8    .8        70       8        .43    .2       80     10        2.24    .7         45      15
  70.0     13          4.2    .9        62       9        .43    .3       79     11        2.15    .7         43      13
  80.0     16          4.5   1.1        58       9        .46    .3       78     11        2.14    .8         40      13
  90.0     16          6.0   2.7        47      10        .68    .5       68     16        2.33    .8         36      14
 100.0     16         11.5   6.0         0       0       2.07    .9        0      0        3.65   1.1          0       0

                     WEIGHT, PERCENT                       BTU PER POUND                   POUNDS OF SO2/M BTU
                RAW: 100.0     SIGMA:    0.0      RAW: 13212     SIGMA:  1025         RAW:   5.6     SIGMA:   1.9

   BTU    NO OF      AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  %INCREASE SIGMA      AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
..........................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..........................................
  50.0      8         44.9   4.5        55       4      14105    192       11     14         3.7    .9         46       9
  60.0     11         54.8   4.6        45       5      14100    219        9     12         3.4   1.1         43       8
  70.0     16         64.8   4.4        35       4      14143    252        8     10         3.3   1.1         39      10
  80.0     16         74.6   4.9        25       5      14063    272        7      9         3.5   1.3         36      11
  90.0     16         85.0   5.5        15       5      13959    308        6      9         4.0   1.4         28      11
 100.0     16        100.0   0.0         0       0      13225   1052        0      0         5.5   1.9          0       0
............................................SAMPLE CRUSHED TO PASS 3/8 INCH............................................
  50.0      6         44.0   5.1        56       5      14118    212       14     16         3.4    .7         53       9
  60.0      9         53.9   5.0        46       5      14104    202       11     13         3.6    .9         47      10
  70.0     13         64.1   4.8        36       5      14138    253        9     11         3.2   1.1         45      11
  80.0     16         74.3   4.9        26       5      14105    282        8      9         3.3   1.2         40      10
  90.0     16         84.8   5.2        15       5      13974    382        6      8         3.8   1.4         32      10
 100.0     16        100.0   0.0         0       0      13201   1065        0      0         5.6   2.0          0       0
............................................SAMPLE CRUSHED TO PASS 14 MESH............................................
  50.0      1         34.5   0.0        66       0      13701      0       44      0         3.9   0.0         54       0
  60.0      7         53.1   5.0        47       5      14215    287       13     13         3.2   1.1         51      12
  70.0     13         64.0   4.4        36       4      14234    280        9     10         3.0   1.1         47      11
  80.0     16         73.9   4.5        26       5      14192    311        8      8         3.0   1.1         45      12
  90.0     16         84.7   3.4        15       3      14000    622        6      5         3.4   1.4         40      12
 100.0     16        100.0   0.0         0       0      13209   1024        0      0         5.6   1.9          0       0
```

```
COALBED:PITTSBURGH                   PITTSBURGH                     PITTSBURGH                      PITTSBURGH
STATES: 1 MARYLAND                   18 OHIO                        6 PA. (BITUMINOUS)              16 WEST VIRGINIA
NUMBER OF SAMPLES: 41
RAW COAL MOISTURE,PERCENT:  1.8
                  SIGMA:  1.0
                               ASH, PERCENT                    PYRITIC SULFUR, PERCENT          TOTAL SULFUR, PERCENT
                        RAW:  13.1     SIGMA:   6.8          RAW:  2.17    SIGMA:   1.0       RAW:  3.60     SIGMA:   1.3

  BTU     NO OF          AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  REDUCTION SIGMA    AVERAGE SIGMA   REDUCTION SIGMA
RECOVERY SAMPLES
..........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.................................
  50.0      28             4.7    1.0      64      10         .77      .3       68      11         2.45     .6        38      12
  60.0      36             4.8    1.2      61      11         .78      .4       65      12         2.30     .8        36      11
  70.0      41             5.2    1.4      57      10         .82      .5       62      14         2.35     .9        34      12
  80.0      41             5.9    1.8      51      11        1.00      .6       55      16         2.52    1.0        29      12
  90.0      41             7.0    2.2      42      12        1.31      .7       40      16         2.83    1.0        21      12
 100.0      41            13.1    6.9       0       0        2.17     1.0        0       0         3.59    1.3         0       0
..........................................................SAMPLE CRUSHED TO PASS 3/8 INCH....................................
  50.0      24             4.4     .7      67      10         .62      .2       71      24         2.31     .6        41      13
  60.0      30             4.5    1.0      65      10         .66      .3       70      15         2.33     .7        39      12
  70.0      38             4.8    1.2      61      10         .70      .4       67      13         2.23     .8        37      12
  80.0      41             5.4    1.5      55      11         .81      .5       62      15         2.35     .9        34      12
  90.0      41             6.7    2.1      45      12        1.12      .6       49      15         2.66    1.0        26      11
 100.0      41            13.1    6.9       0       0        2.15     1.0        0       0         3.58    1.3         0       0
..........................................................SAMPLE CRUSHED TO PASS 14 MESH....................................
  50.0      17             4.4    1.0      72       8         .59      .3       77       8         2.34     .6        42      14
  60.0      26             4.4    1.3      69       8         .57      .3       77       9         2.20     .8        43      13
  70.0      37             4.5    1.6      64       9         .56      .4       76      10         2.12     .8        42      12
  80.0      41             5.2    2.0      58      10         .66      .5       71      13         2.21     .9        39      12
  90.0      41             6.7    3.2      47      10         .91      .7       61      17         2.42    1.0        33      12
 100.0      41            13.1    6.8       0       0        2.20     1.0        0       0         3.63    1.3         0       0
                                                                BTU PER POUND                   POUNDS OF SO2/M BTU
                              WEIGHT, PERCENT               RAW: 12805    SIGMA:  1192         RAW:    5.8     SIGMA:   2.3
                        RAW: 100.0     SIGMA:   0.0

  BTU     NO OF          AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  %INCREASE SIGMA    AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
..........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.................................
  50.0      28            44.1    3.8      56       4       13831     384       12      11          3.5    1.0        45      11
  60.0      36            54.0    4.1      46       4       13896     446       10      10          3.3    1.2        42       9
  70.0      41            63.8    4.4      36       4       13866     482        9       9          3.4    1.3        39      10
  80.0      41            73.6    4.9      26       5       13798     516        9       9          3.7    1.5        35      10
  90.0      41            84.0    5.4      16       5       13673     578        7       8          4.2    1.7        26       9
 100.0      41           100.0    0.0       0       0       12806    1205        0       0          5.7    2.3         0       0
..........................................................SAMPLE CRUSHED TO PASS 3/8 INCH....................................
  50.0      24            43.7    4.0      56       4       13895     363       14      13          3.3     .9        48      12
  60.0      30            53.3    4.4      47       4       13868     386       12      11          3.4    1.0        46      11
  70.0      38            63.3    4.6      37       5       13921     456       10      10          3.2    1.2        43      10
  80.0      41            73.3    5.1      27       5       13868     484        9       9          3.4    1.4        40      10
  90.0      41            83.7    5.4      16       5       13724     571        8       8          3.9    1.6        31       9
 100.0      41           100.0    0.0       0       0       12804    1202        0       0          5.7    2.3         0       0
..........................................................SAMPLE CRUSHED TO PASS 14 MESH....................................
  50.0      17            42.4    4.1      58       4       13763     368       17      13          3.4     .9        50      13
  60.0      26            52.6    4.3      47       4       13916     465       14      11          3.2    1.1        49      12
  70.0      37            63.1    4.4      37       4       13993     500       11       9          3.0    1.2        47      11
  80.0      41            73.1    4.7      27       5       13918     543        9       9          3.2    1.3        44      11
  90.0      41            83.8    4.2      16       4       13715     749        8       6          3.6    1.6        38      11
 100.0      41           100.0    0.0       0       0       12806    1197        0       0          5.8    2.3         0       0
```

```
COALBED:    UPPER FREEPORT
STATE:      PA. (BITUMINOUS)
NUMBER OF SAMPLES: 20
RAW COAL MOISTURE,PERCENT:    .9
                    SIGMA:    .4

                           ASH, PERCENT                    PYRITIC SULFUR, PERCENT               TOTAL SULFUR, PERCENT
                      RAW:  17.5     SIGMA:    5.5       RAW:  1.87     SIGMA:   1.0          RAW:  2.57     SIGMA:   1.1

  BTU     NO OF        AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA   REDUCTION SIGMA
RECOVERY SAMPLES

...................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.........................................
  50.0      12           4.3     .9      74      10         .49     .3      74       9          1.20     .4       51      12
  60.0      18           4.6    1.1      71      10         .48     .3      73      11          1.18     .4       49      15
  70.0      20           5.3    1.4      67      12         .58     .4      68      14          1.27     .5       46      16
  80.0      20           6.6    1.6      59      13         .74     .5      59      16          1.43     .6       40      16
  90.0      20           8.5    1.8      48      13         .97     .6      47      17          1.66     .7       32      14
 100.0      20          17.5    5.7       0       0        1.86    1.0       0       0          2.56    1.1        0       0
......................................................SAMPLE CRUSHED TO PASS 3/8 INCH...........................................
  50.0       5           4.1     .8      77       9         .26     .2      84       8           .90     .3       58      11
  60.0      15           4.0    1.1      77       9         .27     .2      85       7           .93     .3       57      13
  70.0      19           4.5    1.4      73      10         .33     .3      83       9          1.02     .3       57      14
  80.0      20           5.6    1.7      66      11         .44     .4      76      12          1.12     .4       53      14
  90.0      20           7.7    2.1      54      12         .64     .5      65      16          1.33     .6       45      15
 100.0      20          17.6    5.6       0       0        1.87    1.0       0       0          2.58    1.2        0       0
......................................................SAMPLE CRUSHED TO PASS 14 MESH............................................
  50.0       7           3.6     .6      81       6         .17     .1      90       5           .81     .2       63      11
  60.0      16           3.6     .9      79       6         .18     .1      89       6           .84     .2       60      14
  70.0      20           4.0    1.2      76       7         .22     .2      88       8           .90     .2       61      14
  80.0      20           5.3    1.5      68       8         .31     .2      83      11           .98     .3       58      15
  90.0      20           7.5    2.1      55       9         .48     .3      73      15          1.14     .4       53      15
 100.0      20          17.4    5.6       0       0        1.87    1.0       0       0          2.57    1.1        0       0

                           WEIGHT, PERCENT                      BTU PER POUND                    POUNDS OF SO2/M BTU
                      RAW: 100.0     SIGMA:    0.0       RAW: 12540     SIGMA:    949          RAW:   4.1     SIGMA:   1.9

  BTU     NO OF        AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  %INCREASE SIGMA       AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES

...................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.........................................
  50.0      12          42.3    3.5      58       3        14408    188      18      10           1.7     .5       59       9
  60.0      18          51.7    3.5      48       4        14417    286      16       8           1.6     .6       56      13
  70.0      20          60.8    4.0      39       4        14307    281      15       8           1.8     .7       53      14
  80.0      20          70.6    4.5      29       5        14152    317      13       8           2.0     .8       47      14
  90.0      20          81.2    4.8      19       5        13880    393      11       7           2.4    1.0       39      13
 100.0      20         100.0    0.0       0       0        12535    982       0       0           4.1    1.9        0       0
......................................................SAMPLE CRUSHED TO PASS 3/8 INCH...........................................
  50.0       5          41.8    3.8      58       4        14556    227      20      12           1.2     .4       66       7
  60.0      15          50.9    3.4      49       3        14538    247      18       8           1.3     .4       64      11
  70.0      19          60.2    3.9      40       4        14423    243      16       8           1.4     .5       63      12
  80.0      20          69.9    4.3      30       4        14291    313      15       7           1.6     .6       59      12
  90.0      20          80.4    4.6      20       5        14014    412      12       7           1.9     .8       51      13
 100.0      20         100.0    0.0       0       0        12528    957       0       0           4.1    1.9        0       0
......................................................SAMPLE CRUSHED TO PASS 14 MESH............................................
  50.0       7          40.9    3.0      59       3        14550    223      22       9           1.1     .2       70       8
  60.0      16          50.8    3.3      49       3        14618    288      18       8           1.1     .3       66      12
  70.0      20          60.1    3.7      40       4        14506    270      16       8           1.2     .3       66      12
  80.0      20          69.8    4.1      30       4        14346    324      15       7           1.4     .4       63      13
  90.0      20          80.4    4.2      20       4        14029    435      12       6           1.6     .6       58      13
 100.0      20         100.0    0.0       0       0        12555    958       0       0           4.1    1.9        0       0
```

```
COALBED:  UPPER FREEPORT                                     UPPER FREEPORT                                UPPER FREEPORT
STATE:      7 MARYLAND                                       20 PA. (BITUMINOUS)                            6 WEST VIRGINIA
NUMBER OF SAMPLES: 33
RAW COAL MOISTURE,PERCENT:    .9
                    SIGMA:    .4

                           ASH, PERCENT                        PYRITIC SULFUR, PERCENT                   TOTAL SULFUR, PERCENT
                    RAW:  17.8     SIGMA:    5.5          RAW:  1.77     SIGMA:   1.0             RAW:  2.45     SIGMA:   1.1

  BTU    NO OF          AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  REDUCTION SIGMA
RECOVERY SAMPLES
..................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...............................................
  50.0     24              4.9    1.9       71      12            .41    .3       76      11            1.09     .4        52      13
  60.0     30              5.3    2.1       69      13            .45    .3       74      12            1.12     .4        49      15
  70.0     33              6.0    2.3       65      14            .54    .4       69      14            1.20     .4        46      15
  80.0     33              7.2    2.4       57      14            .68    .5       61      16            1.35     .5        41      15
  90.0     33              9.1    2.6       47      14            .92    .6       48      15            1.59     .7        32      13
 100.0     33             17.8    5.6        0       0           1.76   1.0        0       0            2.43    1.1         0       0
....................................................SAMPLE CRUSHED TO PASS 3/8 INCH.................................................
  50.0     16              4.6    1.8       74      10            .23    .2       85       7             .88     .2        57      13
  60.0     27              4.6    1.9       74      11            .27    .2       84       7             .92     .3        56      13
  70.0     32              5.2    2.1       70      12            .33    .3       81       9             .98     .3        56      14
  80.0     33              6.3    2.4       63      13            .42    .3       76      12            1.08     .4        52      14
  90.0     33              8.3    2.8       52      13            .63    .5       65      15            1.29     .6        44      14
 100.0     33             17.8    5.6        0       0           1.76   1.1        0       0            2.44    1.2         0       0
....................................................SAMPLE CRUSHED TO PASS 14 MESH..................................................
  50.0     18              4.0    1.1       78       7            .15    .1       90       4             .82     .2        61      12
  60.0     29              4.1    1.4       76       8            .18    .1       89       5             .83     .2        60      13
  70.0     33              4.7    1.9       73       9            .21    .1       87       7             .88     .2        60      14
  80.0     33              6.0    2.2       65      10            .29    .2       83      10             .95     .3        57      14
  90.0     33              8.1    2.6       53      11            .46    .4       74      14            1.11     .4        52      13
 100.0     33             17.6    5.4        0       0           1.78   1.1        0       0            2.47    1.2         0       0

                           WEIGHT, PERCENT                         BTU PER POUND                       POUNDS OF SO2/M BTU
                    RAW: 100.0     SIGMA:    0.0          RAW: 12535     SIGMA:   929             RAW:   3.9     SIGMA:   1.9

  BTU    NO OF          AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA  %INCREASE SIGMA        AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
..................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...............................................
  50.0     24             42.5    3.1       57       3          14397    303       17       9             1.5     .5        59      12
  60.0     30             51.7    3.4       48       3          14357    350       15       8             1.6     .6        56      13
  70.0     33             61.1    3.9       39       4          14257    364       14       8             1.7     .7        53      14
  80.0     33             70.9    4.4       29       4          14108    396       13       8             1.9     .8        48      14
  90.0     33             81.4    4.6       19       5          13841    487       11       7             2.3    1.0        39      12
 100.0     33            100.0    0.0        0       0          12531    943        0       0             3.9    1.9         0       0
....................................................SAMPLE CRUSHED TO PASS 3/8 INCH.................................................
  50.0     16             42.3    3.2       58       3          14487    323       18      10             1.2     .4        63      11
  60.0     27             51.1    3.5       49       3          14471    328       17       9             1.3     .4        63      12
  70.0     32             60.5    3.9       40       4          14370    344       16       8             1.4     .5        62      12
  80.0     33             70.2    4.3       30       4          14232    397       14       8             1.5     .6        58      13
  90.0     33             80.7    4.6       19       5          13955    497       12       7             1.9     .9        50      13
 100.0     33            100.0    0.0        0       0          12522    949        0       0             3.9    1.9         0       0
....................................................SAMPLE CRUSHED TO PASS 14 MESH..................................................
  50.0     18             41.9    2.9       58       3          14568    255       19       9             1.1     .3        67      11
  60.0     29             51.1    3.1       49       3          14571    316       17       8             1.1     .3        65      12
  70.0     33             60.4    3.6       40       4          14453    339       16       7             1.2     .3        65      12
  80.0     33             70.1    3.9       30       4          14287    396       14       7             1.3     .4        62      12
  90.0     33             80.7    4.1       19       4          13988    497       12       6             1.6     .7        57      12
 100.0     33            100.0    0.0        0       0          12553    924        0       0             4.0    1.9         0       0
```

```
   COALBED:    LOWER FREEPORT
   STATE:      PA. (BITUMINOUS)
   NUMBER OF SAMPLES: 10
   RAW COAL MOISTURE.PERCENT:   1.0
                      SIGMA:    .5

                           ASH, PERCENT                          PYRITIC SULFUR, PERCENT                TOTAL SULFUR, PERCENT
                     RAW:  13.7      SIGMA:    4.0         RAW:  1.55      SIGMA:     .5          RAW:  2.22      SIGMA:     .6

   BTU     NO OF      AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA   REDUCTION SIGMA
 RECOVERY SAMPLES
.........................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES......................................
   50.0       5           4.3   1.0       67      7            .34    .2       76      16          1.02    .3        51      16
   60.0       7           4.3   1.2       68     10            .39    .2       74      15          1.11    .3        50      15
   70.0      10           4.5   1.4       65     12            .44    .2       69      15          1.11    .3        47      14
   80.0      10           5.4   1.6       59     12            .55    .2       62      15          1.22    .3        43      13
   90.0      10           6.9   1.8       48     13            .73    .3       51      14          1.40    .4        35      12
  100.0      10          13.7   4.2        0      0           1.53    .5        0       0          2.20    .6         0       0
...........................................SAMPLE CRUSHED TO PASS 3/8 INCH........................................
   50.0       2           3.6    .9       76     10            .14    .1       85       0           .74    .2        52       7
   60.0       4           4.2    .8       69      7            .18    .1       85       6           .82    .2        57       9
   70.0       9           3.8   1.1       70     10            .20    .1       87       7           .85    .2        61       9
   80.0      10           4.6   1.3       65     11            .27    .1       82       9           .89    .3        59      10
   90.0      10           6.1   1.5       54     12            .40    .2       74      12          1.02    .3        53      11
  100.0      10          13.8   4.0        0      0           1.55    .5        0       0          2.20    .6         0       0
...........................................SAMPLE CRUSHED TO PASS 14 MESH.........................................
   50.0       4           3.1    .4       79      5            .12    .0       89       8           .76    .1        60      11
   60.0       8           3.5   1.0       75      6            .13    .0       90       6           .75    .1        64      10
   70.0      10           3.7   1.2       72      7            .16    .1       89       6           .80    .2        63       9
   80.0      10           4.6   1.5       65      8            .18    .1       87       6           .83    .2        62       9
   90.0      10           6.0   1.7       54      9            .29    .1       82       6           .93    .3        58       9
  100.0      10          13.5   4.1        0      0           1.58    .5        0       0          2.26    .6         0       0
                          WEIGHT, PERCENT                          BTU PER POUND                      POUNDS OF SO2/M BTU
                     RAW: 100.0      SIGMA:    0.0         RAW: 13223      SIGMA:    684          RAW:    3.4     SIGMA:     .9

   BTU     NO OF      AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  %INCREASE SIGMA        AVERAGE SIGMA  %REDUCTION SIGMA
 RECOVERY SAMPLES
.........................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES......................................
   50.0       5          44.8   1.2       55      1          14565    444       10       3           1.4    .5        56      14
   60.0       7          53.4   2.1       47      2          14554    408       11       5           1.5    .4        55      12
   70.0      10          63.1   2.9       37      3          14536    383       10       5           1.5    .5        53      12
   80.0      10          72.9   3.3       27      3          14430    403        9       5           1.7    .5        48      11
   90.0      10          83.4   3.5       17      4          14258    449        8       5           2.0    .5        40      10
  100.0      10         100.0   0.0        0      0          13220    722        0       0           3.3    .9         0       0
...........................................SAMPLE CRUSHED TO PASS 3/8 INCH........................................
   50.0       2          43.8   1.2       56      1          14487    626       13       4           1.0    .4        58       5
   60.0       4          53.7   1.6       46      2          14545    429       11       3           1.1    .3        62       7
   70.0       9          62.9   2.7       37      3          14682    372       11       5           1.2    .3        64       8
   80.0      10          72.2   3.2       28      3          14559    378       10       5           1.2    .4        63       9
   90.0      10          82.6   3.5       17      3          14383    424        9       5           1.4    .5        57      10
  100.0      10         100.0   0.0        0      0          13206    693        0       0           3.3    .9         0       0
...........................................SAMPLE CRUSHED TO PASS 14 MESH.........................................
   50.0       4          43.4   1.8       57      2          14686    342       15       5           1.0    .1        65      10
   60.0       8          53.0   2.0       47      2          14695    315       13       4           1.0    .1        69       8
   70.0      10          62.7   2.5       37      2          14683    345       11       4           1.1    .3        67       8
   80.0      10          72.5   2.7       28      3          14567    379       10       4           1.1    .3        66       8
   90.0      10          82.8   2.9       17      3          14387    425        9       4           1.3    .4        61       8
  100.0      10         100.0   0.0        0      0          13244    709        0       0           3.4   1.0         0       0
```

```
COALBED:  LOWER FREEPORT                            LOWER FREEPORT                           LOWER FREEPORT
STATE:      1 MARYLAND                              2 OHIO                                   10 PA. (BITUMINOUS)
NUMBER OF SAMPLES: 13
RAW COAL MOISTURE.PERCENT:  1.1
                   SIGMA:    .7

                         ASH. PERCENT                    PYRITIC SULFUR. PERCENT                  TOTAL SULFUR. PERCENT
                  RAW:  13.5      SIGMA:   3.9        RAW:  1.70      SIGMA:     .7           RAW:  2.39      SIGMA:     .7

  BTU     NO OF          AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA   REDUCTION SIGMA
RECOVERY SAMPLES
......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...........................................
  50.0      6              4.4   1.0       68      6         .37     .2       77      15          1.06     .3        54      16
  60.0     10              4.4   1.2       67      8         .41     .2       75      13          1.14     .3        52      14
  70.0     13              4.6   1.5       65     11         .45     .2       71      14          1.14     .3        49      14
  80.0     13              5.4   1.7       58     11         .58     .2       63      13          1.28     .3        44      13
  90.0     13              6.9   2.0       47     12         .80     .3       51      13          1.50     .4        35      11
 100.0     13             13.5   4.0        0      0        1.68     .7        0       0          2.38     .8         0       0
........................................................SAMPLE CRUSHED TO PASS 3/8 INCH..............................................
  50.0      3              3.8    .8       76      7         .24     .2       86       2           .76     .2        62      17
  60.0      5              4.4    .9       69      6         .20     .1       87       6           .84     .2        61      12
  70.0     11              3.9   1.3       70      9         .22     .1       87       7           .87     .2        62       9
  80.0     13              4.6   1.6       65     10         .30     .2       82       9           .93     .3        59      10
  90.0     13              6.0   1.9       54     11         .46     .3       73      11          1.10     .4        52      10
 100.0     13             13.5   4.0        0      0        1.69     .7        0       0          2.35     .7         0       0
........................................................SAMPLE CRUSHED TO PASS 14 MESH...............................................
  50.0      5              3.4    .6       79      4         .15     .1       90       7           .80     .1        63      12
  60.0     10              3.6   1.1       75      5         .14     .1       91       5           .77     .1        66       9
  70.0     13              3.7   1.4       73      7         .17     .1       90       5           .83     .2        64       9
  80.0     13              4.6   1.6       66      7         .20     .1       88       5           .87     .2        63       9
  90.0     13              5.9   1.8       55      8         .32     .2       82       5           .98     .3        58       8
 100.0     13             13.4   4.0        0      0        1.74     .7        0       0          2.43     .8         0       0

                        WEIGHT. PERCENT                        BTU PER POUND                      POUNDS OF SO2/M BTU
                  RAW: 100.0      SIGMA:   0.0        RAW: 13185      SIGMA:   617            RAW:   3.6      SIGMA:    1.2

  BTU     NO OF          AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA  %INCREASE SIGMA      AVERAGE SIGMA   %REDUCTION SIGMA
RECOVERY SAMPLES
......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...........................................
  50.0      6             44.5   1.2       55      1        14540    401       11       3           1.5     .5        59      14
  60.0     10             53.7   2.0       46      2        14467    362       10       4           1.6     .4        57      12
  70.0     13             63.3   2.6       37      3        14453    368       10       5           1.6     .4        54      12
  80.0     13             73.1   2.9       27      3        14345    385        9       5           1.8     .5        49      11
  90.0     13             83.7   3.1       16      3        14171    430        8       4           2.1     .6        40      10
 100.0     13            100.0   0.0        0      0        13182    644        0       0           3.6    1.2         0       0
........................................................SAMPLE CRUSHED TO PASS 3/8 INCH..............................................
  50.0      3             43.4   1.1       57      1        14499    443       14       3           1.0     .3        67      15
  60.0      5             53.3   1.7       47      2        14520    376       11       3           1.1     .3        65      11
  70.0     11             62.9   2.5       37      3        14618    362       11       4           1.2     .3        66       8
  80.0     13             72.5   2.9       28      3        14485    357       10       5           1.3     .4        63       9
  90.0     13             82.9   3.1       17      3        14305    407        9       4           1.5     .5        56      10
 100.0     13            100.0   0.0        0      0        13180    622        0       0           3.6    1.1         0       0
........................................................SAMPLE CRUSHED TO PASS 14 MESH...............................................
  50.0      5             43.3   1.6       57      2        14675    297       15       4           1.1     .2        68      11
  60.0     10             53.0   1.9       47      2        14650    295       13       4           1.0     .2        70       8
  70.0     13             62.8   2.3       37      2        14612    329       11       4           1.1     .3        68       7
  80.0     13             72.5   2.4       27      2        14497    354       10       4           1.2     .3        66       8
  90.0     13             82.9   2.7       17      3        14326    387        9       4           1.4     .4        62       8
 100.0     13            100.0   0.0        0      0        13195    637        0       0           3.7    1.2         0       0
```

```
COALBED:  UPPER KITTANNING                                                          UPPER KITTANNING
STATE:       2 MARYLAND                                                              8 PA. (BITUMINOUS)
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE.PERCENT:  1.3
                    SIGMA:  1.0

                              ASH, PERCENT                      PYRITIC SULFUR, PERCENT              TOTAL SULFUR, PERCENT
                        RAW:  16.5      SIGMA:    6.9        RAW:  1.62     SIGMA:   1.2        RAW:  2.21     SIGMA:   1.3

  BTU     NO OF          AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  REDUCTION SIGMA     AVERAGE SIGMA  REDUCTION SIGMA
RECOVERY SAMPLES
.......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.........................................
  50.0      10             3.4    .7      77       9       .20     .2      80     22          .83    .3       51      26
  60.0      10             4.1    .9      72      11       .15     .2      82     23          .82    .3       52      27
  70.0      10             5.1    .9      65      12       .25     .2      77     20          .87    .4       50      26
  80.0      10             6.5    .9      56      12       .39     .3      71     16         1.01    .5       45      23
  90.0      10             8.6   1.6      44      11       .61     .6      62     14         1.23    .7       38      19
 100.0      10            16.6   7.0       0       0      1.62    1.2       0      0         2.21   1.3        0       0
.........................................................SAMPLE CRUSHED TO PASS 3/8 INCH...........................................
  50.0       9             3.1    .7      79       9       .13     .1      85     27          .79    .3       57      25
  60.0      10             3.4   1.0      76      11       .15     .1      82     25          .78    .3       52      29
  70.0      10             4.4   1.1      70      12       .17     .2      81     24          .80    .4       51      29
  80.0      10             5.7   1.1      62      13       .27     .3      77     20          .88    .4       49      27
  90.0      10             7.8   1.7      49      13       .42     .4      71     17         1.03    .6       45      23
 100.0      10            16.7   7.4       0       0      1.61    1.2       0      0         2.20   1.3        0       0
.........................................................SAMPLE CRUSHED TO PASS 14 MESH............................................
  50.0       9             3.0    .8      80       8       .11     .1      86     27          .78    .3       59      24
  60.0      10             3.5   1.0      77       9       .13     .1      84     24          .78    .3       53      28
  70.0      10             4.4   1.1      71       9       .16     .1      83     21          .80    .3       53      27
  80.0      10             5.6   1.2      62      10       .25     .2      80     18          .87    .4       51      26
  90.0      10             7.5   1.7      51       9       .39     .4      75     16          .99    .5       47      24
 100.0      10            16.2   6.9       0       0      1.64    1.3       0      0         2.22   1.3        0       0

                             WEIGHT, PERCENT                      BTU PER POUND                   POUNDS OF SO2/M BTU
                        RAW: 100.0      SIGMA:    0.0        RAW: 12752     SIGMA:  1069        RAW:   3.5     SIGMA:   2.0

  BTU     NO OF          AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  %INCREASE SIGMA     AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
.......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.........................................
  50.0      10            42.8   3.7      57       4      14624    267      16     11          1.1    .4       58      23
  60.0      10            51.9   4.4      48       4      14523    259      15     11          1.1    .5       58      24
  70.0      10            61.4   5.1      39       5      14420    255      14     11          1.2    .5       56      23
  80.0      10            71.4   5.7      29       6      14259    258      13     11          1.4    .7       51      21
  90.0      10            82.2   5.6      18       6      13902    417      10      8          1.8   1.0       43      18
 100.0      10           100.0   0.0       0       0      12740   1094       0      0          3.5   2.0        0       0
.........................................................SAMPLE CRUSHED TO PASS 3/8 INCH...........................................
  50.0       9            42.4   4.1      58       4      14686    279      17     13          1.1    .4       63      23
  60.0      10            51.5   4.7      49       5      14617    269      16     12          1.1    .4       58      26
  70.0      10            60.9   5.4      39       5      14520    263      15     12          1.1    .5       58      26
  80.0      10            70.7   6.2      29       6      14382    295      14     12          1.2    .6       55      24
  90.0      10            81.4   6.1      19       6      14021    457      11      9          1.5    .8       50      22
 100.0      10           100.0   0.0       0       0      12724   1152       0      0          3.4   2.0        0       0
.........................................................SAMPLE CRUSHED TO PASS 14 MESH............................................
  50.0       9            42.7   3.6      57       4      14703    273      16     11          1.0    .4       64      21
  60.0      10            51.8   4.1      48       4      14654    267      15     11          1.1    .4       59      24
  70.0      10            61.2   4.7      39       5      14555    282      15     10          1.1    .5       59      25
  80.0      10            71.0   5.4      29       5      14394    300      13     10          1.2    .5       56      24
  90.0      10            81.5   5.6      18       6      14102    345      11      9          1.4    .8       52      22
 100.0      10           100.0   0.0       0       0      12791   1076       0      0          3.5   2.0        0       0
```

```
COALBED:   MIDDLE KITTANNING
STATE:     OHIO
NUMBER OF SAMPLES: 14
RAW COAL MOISTURE,PERCENT:  4.3
                    SIGMA:  1.7

                          ASH, PERCENT                         PYRITIC SULFUR, PERCENT                 TOTAL SULFUR, PERCENT
                   RAW:  12.0     SIGMA:    4.6             RAW:  2.09     SIGMA:   1.3            RAW:  3.35     SIGMA:   1.8

  BTU    NO OF      AVERAGE SIGMA  REDUCTION SIGMA          AVERAGE SIGMA  REDUCTION SIGMA          AVERAGE SIGMA   REDUCTION SIGMA
RECOVERY SAMPLES
.....................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...............................................
  50.0      3          4.7    1.1      74      8             .28    .3       67     16             1.12    .6        24     34
  60.0      7          4.1    1.5      72      9             .49    .3       73     12             1.59    .6        41     25
  70.0      9          4.3    1.8      70      9             .53    .3       74     12             1.80    .7        44     23
  80.0     12          4.9    2.2      63     12             .58    .3       71     12             1.71    .7        46     20
  90.0     13          6.0    2.9      51     14             .73    .4       62     12             1.83    .9        40     18
 100.0     14         12.0    4.7       0      0            2.13   1.4        0      0             3.39   1.9         0      0
......................................................SAMPLE CRUSHED TO PASS 3/8 INCH.................................................
  50.0      2          3.9     .1      77      1             .08    .1       66     20              .79    .2         3      0
  60.0      6          3.3    1.0      78      5             .35    .2       80     15             1.55    .7        41     30
  70.0      7          3.6    1.5      76      8             .41    .3       79     14             1.71    .7        42     27
  80.0     11          4.0    1.8      68     11             .40    .3       80     11             1.63    .7        47     22
  90.0     14          4.9    2.5      58     12             .50    .4       73     11             1.66    .8        44     21
 100.0     14         11.8    4.6       0      0            2.05   1.3        0      0             3.32   1.8         0      0
......................................................SAMPLE CRUSHED TO PASS 14 MESH.................................................
  50.0      5          2.9     .3      82      4             .30    .2       79      9             1.40    .6        39     28
  60.0      8          3.0     .9      80      5             .35    .2       83      9             1.71    .6        46     25
  70.0     10          3.5    1.3      75      8             .37    .2       82      8             1.62    .7        50     23
  80.0     14          3.9    1.9      67     11             .35    .3       82      9             1.48    .8        49     24
  90.0     14          5.2    2.8      58     11             .51    .4       75     10             1.63    .9        46     22
 100.0     14         12.3    4.9       0      0            2.10   1.4        0      0             3.34   1.8         0      0

                         WEIGHT, PERCENT                          BTU PER POUND                       POUNDS OF SO2/M BTU
                   RAW: 100.0     SIGMA:    0.0             RAW: 12598     SIGMA:   803            RAW:    5.4     SIGMA:    3.0

  BTU    NO OF      AVERAGE SIGMA  REDUCTION SIGMA          AVERAGE SIGMA  %INCREASE SIGMA          AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
....................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES................................................
  50.0      3         42.6    1.1      57      1           13290    143       15      3              1.7     .9        34     30
  60.0      7         52.9    2.1      47      2           13559    436       13      4              2.4    1.0        47     23
  70.0      9         62.3    2.0      38      2           13559    442       12      4              2.6    1.0        49     21
  80.0     12         73.0    2.5      27      2           13583    529        9      4              2.5    1.1        51     18
  90.0     13         83.8    2.8      16      3           13458    597        7      4              2.7    1.3        44     16
 100.0     14        100.0    0.0       0      0           12596    815        0      0              5.4    3.1         0      0
......................................................SAMPLE CRUSHED TO PASS 3/8 INCH.................................................
  50.0      2         42.6     .6      57      1           13491    128       15      3              1.2     .4        16      2
  60.0      6         52.2    1.8      48      2           13558    232       14      4              2.3    1.0        48     26
  70.0      7         61.3    1.9      39      2           13560    328       13      3              2.5    1.0        49     24
  80.0     11         72.4    2.7      28      3           13650    468       10      4              2.4    1.1        51     20
  90.0     14         83.4    2.9      17      3           13604    555        8      4              2.4    1.2        48     19
 100.0     14        100.0    0.0       0      0           12635    806        0      0              5.3    3.0         0      0
......................................................SAMPLE CRUSHED TO PASS 14 MESH.................................................
  50.0      5         42.5    1.7      58      2           13559    116       16      5              2.1     .9        47     25
  60.0      8         52.0    1.7      48      2           13688    310       15      4              2.5     .9        53     21
  70.0     10         62.1    2.5      38      2           13725    410       12      5              2.4    1.0        55     20
  80.0     14         72.9    3.0      27      3           13740    512       10      5              2.2    1.1        53     22
  90.0     14         83.2    2.9      17      3           13561    613        8      4              2.4    1.3        50     21
 100.0     14        100.0    0.0       0      0           12562    848        0      0              5.4    3.0         0      0
```

```
COALBED:    MIDDLE KITTANNING
STATE:      PA. (BITUMINOUS)
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE,PERCENT:    .8
                   SIGMA:    .6

                          ASH, PERCENT                    PYRITIC SULFUR, PERCENT               TOTAL SULFUR, PERCENT
                    RAW:  13.0     SIGMA:    5.4       RAW:  1.93     SIGMA:    1.8          RAW:  2.77     SIGMA:    2.3

  BTU     NO OF       AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA   REDUCTION SIGMA
RECOVERY SAMPLES
...................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.........................................
  50.0      6           5.7    2.5       61      8         .81    1.1       70      17         1.62    1.4         48      16
  60.0      9           5.7    2.6       58      9         .71    1.0       72      18         1.53    1.3         47      13
  70.0      9           6.4    3.0       54      9         .84    1.1       67      19         1.65    1.5         44      13
  80.0     10           7.1    3.4       46      8         .89    1.2       57      22         1.70    1.6         36      18
  90.0     10           8.9    4.2       33      7        1.13    1.6       47      23         1.96    2.0         29      16
 100.0     10          13.1    5.7        0      0        1.94    1.9        0       0         2.76    2.4          0       0
......................................................SAMPLE CRUSHED TO PASS 3/8 INCH..........................................
  50.0      6           4.7    1.9       67      7         .54     .8       82      12         1.38    1.1         56      14
  60.0      9           4.7    2.1       64      8         .49     .8       82      12         1.34    1.1         53      12
  70.0      9           5.5    2.4       58      9         .58     .9       79      14         1.43    1.2         51      12
  80.0     10           6.1    2.9       53      8         .65    1.0       69      21         1.47    1.3         43      18
  90.0     10           7.9    3.7       40      7         .88    1.3       59      21         1.70    1.7         37      16
 100.0     10          13.0    5.6        0      0        1.93    1.8        0       0         2.75    2.4          0       0
......................................................SAMPLE CRUSHED TO PASS 14 MESH...........................................
  50.0      8           4.1    1.9       71      5         .41     .7       81      15         1.26    1.0         49      22
  60.0     10           4.2    2.1       68      5         .38     .7       82      15         1.27    1.0         49      20
  70.0     10           4.7    2.6       64      8         .45     .8       79      16         1.33    1.1         47      19
  80.0     10           5.8    2.7       55      8         .55     .9       74      15         1.40    1.2         45      18
  90.0     10           7.5    3.2       42      7         .75    1.1       66      14         1.60    1.5         41      16
 100.0     10          13.0    5.5        0      0        1.94    1.9        0       0         2.79    2.4          0       0

                          WEIGHT, PERCENT                      BTU PER POUND                    POUNDS OF SO2/M BTU
                    RAW: 100.0     SIGMA:    0.0       RAW: 13271     SIGMA:    871          RAW:   4.4     SIGMA:   4.1

  BTU     NO OF       AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  %INCREASE SIGMA       AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
..................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..........................................
  50.0      6          44.7    2.2       55      2       14405    509       11       6          2.3    2.2         53      16
  60.0      9          54.4    2.1       46      2       14439    495        9       5          2.2    2.1         51      14
  70.0      9          64.2    2.2       36      2       14306    536        8       5          2.4    2.3         48      13
  80.0     10          74.7    2.3       25      2       14116    564        7       4          2.5    2.5         39      18
  90.0     10          85.8    1.9       14      2       13879    711        5       2          2.9    3.2         32      15
 100.0     10         100.0    0.0        0      0       13253    912        0       0          4.4    4.4          0       0
.....................................................SAMPLE CRUSHED TO PASS 3/8 INCH...........................................
  50.0      6          44.4    2.5       56      3       14555    441       12       7          1.9    1.7         60      14
  60.0      9          54.1    2.4       46      2       14581    436       10       5          1.9    1.6         57      13
  70.0      9          63.7    2.5       36      3       14459    467        9       5          2.0    1.8         54      13
  80.0     10          74.0    2.6       26      3       14273    494        8       4          2.1    2.0         47      18
  90.0     10          85.1    2.2       15      2       14023    652        6       3          2.5    2.6         40      15
 100.0     10         100.0    0.0        0      0       13280    895        0       0          4.3    4.2          0       0
.....................................................SAMPLE CRUSHED TO PASS 14 MESH............................................
  50.0      8          44.6    2.1       55      2       14572    438       12       6          1.7    1.5         54      22
  60.0     10          54.2    2.2       46      2       14571    452       10       5          1.8    1.5         53      19
  70.0     10          63.8    2.5       36      2       14462    472        9       5          1.9    1.7         51      19
  80.0     10          73.8    2.8       26      3       14333    496        8       4          2.0    1.9         49      18
  90.0     10          84.6    2.6       15      3       14099    600        6       3          2.3    2.4         44      16
 100.0     10         100.0    0.0        0      0       13280    901        0       0          4.4    4.3          0       0
```

```
COALBED:  MIDDLE KITTANNING                        MIDDLE KITTANNING                         MIDDLE KITTANNING
STATE:    14 OHIO                                  10 PA. (BITUMINOUS)                       3 WEST VIRGINIA
NUMBER OF SAMPLES: 27
RAW COAL MOISTURE,PERCENT:  2.7
                   SIGMA:  2.1

                          ASH, PERCENT                   PYRITIC SULFUR, PERCENT               TOTAL SULFUR, PERCENT
                     RAW:  13.1      SIGMA:   5.1     RAW:  1.97     SIGMA:   1.5         RAW:  3.00     SIGMA:   2.0

   BTU    NO OF       AVERAGE SIGMA  REDUCTION SIGMA     AVERAGE SIGMA  REDUCTION SIGMA      AVERAGE SIGMA  REDUCTION SIGMA
RECOVERY SAMPLES
.....................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..................................
  50.0     12          5.1   1.9      68     10        .57    .8      70     14         1.36   1.0       40      24
  60.0     19          5.0   2.1      66     11        .59    .7      71     15         1.50   1.0       43      19
  70.0     21          5.5   2.5      62     12        .68    .8      69     16         1.67   1.1       42      19
  80.0     25          6.2   2.9      55     13        .73    .8      63     18         1.68   1.1       40      20
  90.0     26          7.7   3.7      43     14        .92   1.0      54     19         1.85   1.4       33      18
 100.0     27         13.2   5.2       0      0       2.00   1.5       0      0         3.02   2.0        0       0
.......................................................SAMPLE CRUSHED TO PASS 3/8 INCH.....................................
  50.0     11          4.3   1.5      72      8        .36    .6      79     14         1.14    .9       44      27
  60.0     18          4.2   1.7      71      9        .40    .5      81     13         1.34    .8       47      22
  70.0     19          4.7   2.1      67     12        .48    .6      78     14         1.47    .9       46      21
  80.0     24          5.2   2.5      61     12        .51    .7      73     17         1.50   1.0       44      21
  90.0     27          6.5   3.3      50     13        .66    .8      65     18         1.63   1.2       40      19
 100.0     27         12.9   5.1       0      0       1.95   1.5       0      0         2.98   2.0        0       0
.......................................................SAMPLE CRUSHED TO PASS 14 MESH.....................................
  50.0     15          3.6   1.4      76      7        .34    .5      80     13         1.25    .8       44      24
  60.0     21          3.7   1.6      74      8        .34    .5      82     13         1.38    .8       48      22
  70.0     23          4.2   2.0      70      9        .39    .5      80     13         1.41    .9       48      22
  80.0     27          4.8   2.3      62     11        .42    .6      78     14         1.40    .9       47      22
  90.0     27          6.4   3.0      52     11        .59    .7      70     15         1.56   1.1       43      21
 100.0     27         13.2   5.1       0      0       1.98   1.5       0      0         3.00   2.0        0       0
                         WEIGHT, PERCENT                     BTU PER POUND                   POUNDS OF SO2/M BTU
                     RAW: 100.0     SIGMA:   0.0      RAW: 12820     SIGMA:   864         RAW:   4.8     SIGMA:   3.4

   BTU    NO OF       AVERAGE SIGMA  REDUCTION SIGMA     AVERAGE SIGMA  %INCREASE SIGMA      AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
.....................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..................................
  50.0     12         43.5   2.1      57      2       14133   618      14      6          1.9   1.6       48      21
  60.0     19         53.3   2.3      47      2       14094   593      12      5          2.2   1.5       49      18
  70.0     21         62.9   2.3      37      2       13964   570      11      5          2.4   1.6       47      17
  80.0     25         73.4   2.6      27      3       13831   560       9      4          2.5   1.7       44      18
  90.0     26         84.3   2.7      16      3       13622   631       7      3          2.8   2.2       38      16
 100.0     27        100.0   0.0       0      0       12806   873       0      0          4.8   3.5        0       0
.......................................................SAMPLE CRUSHED TO PASS 3/8 INCH.....................................
  50.0     11         43.4   2.3      57      2       14358   534      14      6          1.6   1.3       51      23
  60.0     18         52.9   2.5      47      2       14215   581      13      5          1.9   1.3       53      19
  70.0     19         62.3   2.6      38      3       14105   564      12      5          2.1   1.4       52      18
  80.0     24         72.8   2.8      27      3       13968   532      10      5          2.2   1.5       49      19
  90.0     27         83.8   2.7      16      3       13764   590       7      4          2.4   1.8       44      18
 100.0     27        100.0   0.0       0      0       12847   861       0      0          4.7   3.4        0       0
.......................................................SAMPLE CRUSHED TO PASS 14 MESH.....................................
  50.0     15         43.5   2.1      56      2       14235   589      14      6          1.8   1.2       51      22
  60.0     21         52.8   2.3      47      2       14229   563      13      5          2.0   1.2       54      20
  70.0     23         62.6   2.7      37      3       14134   543      11      5          2.0   1.3       53      19
  80.0     27         72.9   3.0      27      3       14012   548      10      5          2.0   1.4       52      21
  90.0     27         83.4   2.9      17      3       13791   617       8      4          2.3   1.7       47      19
 100.0     27        100.0   0.0       0      0       12809   890       0      0          4.8   3.4        0       0
```

```
COALBED:   LOWER KITTANNING
STATE:     PA. (BITUMINOUS)
NUMBER OF SAMPLES: 33
RAW COAL MOISTURE.PERCENT:    .8
                  SIGMA:    .4

                       ASH. PERCENT               PYRITIC SULFUR. PERCENT          TOTAL SULFUR. PERCENT
                  RAW:  16.0     SIGMA:   7.2     RAW:  2.38    SIGMA:   1.4     RAW:  3.23    SIGMA:   1.6

  BTU    NO OF       AVERAGE SIGMA  REDUCTION SIGMA    AVERAGE SIGMA  REDUCTION SIGMA    AVERAGE SIGMA  REDUCTION SIGMA
RECOVERY SAMPLES
...................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...................................
  50.0     18          4.6   1.7     73      10       .46    .4      77      14       1.27    .5      52      22
  60.0     24          4.9   1.9     70      11       .52    .4      76      15       1.34    .5      53      21
  70.0     31          5.3   2.4     66      11       .62    .4      73      15       1.45    .5      51      19
  80.0     33          6.3   3.0     59      11       .73    .5      68      16       1.57    .6      45      20
  90.0     33          8.6   4.5     45      11      1.03    .7      56      17       1.86    .8      37      17
 100.0     33         16.0   7.4      0       0      2.36   1.4       0       0       3.22   1.6       0       0
...................................................SAMPLE CRUSHED TO PASS 3/8 INCH.......................................
  50.0      8          4.4   1.8     78       8       .42    .4      81      12       1.21    .6      49      22
  60.0     20          4.2   1.7     76       9       .39    .3      83      11       1.21    .5      55      22
  70.0     28          4.6   2.1     72      10       .44    .4      81      13       1.24    .5      56      20
  80.0     33          5.5   2.9     65      11       .52    .4      77      15       1.35    .5      51      21
  90.0     33          7.9   4.5     51      11       .79    .6      67      16       1.61    .7      44      18
 100.0     33         16.1   7.3      0       0      2.38   1.4       0       0       3.23   1.6       0       0
...................................................SAMPLE CRUSHED TO PASS 14 MESH........................................
  50.0     18          3.5   1.2     81       6       .29    .2      87       9       1.08    .3      58      22
  60.0     23          3.7   1.5     79       6       .31    .3      87      10       1.10    .3      60      20
  70.0     33          3.9   1.9     74       8       .33    .3      85      10       1.15    .4      57      21
  80.0     33          5.1   2.7     67       9       .44    .3      81      12       1.25    .4      54      20
  90.0     33          7.5   4.3     53       9       .70    .5      71      14       1.50    .6      48      18
 100.0     33         15.9  '7.0      0       0      2.39   1.4       0       0       3.25   1.6       0       0

                      WEIGHT. PERCENT                  BTU PER POUND                POUNDS OF SO2/M BTU
                  RAW: 100.0     SIGMA:   0.0     RAW: 12822     SIGMA:  1170     RAW:   5.1     SIGMA:   2.5

  BTU    NO OF       AVERAGE SIGMA  REDUCTION SIGMA    AVERAGE SIGMA  %INCREASE SIGMA    AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
...................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...................................
  50.0     18         42.2   4.0     58       4      14503   369      19      13        1.7    .7      59      19
  60.0     24         51.4   4.3     49       4      14414   392      16      11        1.9    .7      60      18
  70.0     31         61.4   4.6     39       5      14395   463      14      10        2.0    .8      57      16
  80.0     33         71.6   4.9     28       5      14260   564      12       9        2.2    .9      51      18
  90.0     33         82.8   4.0     17       4      13901   845       9       6        2.7   1.2      42      16
 100.0     33        100.0   0.0      0       0      12823  1202       0       0        5.1   2.5       0       0
...................................................SAMPLE CRUSHED TO PASS 3/8 INCH.......................................
  50.0      8         40.8   4.2     59       4      14542   400      23      15        1.7    .8      59      17
  60.0     20         50.6   4.5     49       5      14512   356      19      12        1.7    .7      62      19
  70.0     28         60.4   4.7     40       5      14490   432      16      10        1.7    .7      62      17
  80.0     33         70.9   4.9     29       5      14385   558      13       9        1.9    .8      56      19
  90.0     33         82.1   4.1     18       4      14007   862      10       6        2.3   1.1      49      18
 100.0     33        100.0   0.0      0       0      12803  1196       0       0        5.1   2.6       0       0
...................................................SAMPLE CRUSHED TO PASS 14 MESH........................................
  50.0     18         41.6   3.5     58       3      14742   327      20      11        1.5    .5      65      18
  60.0     23         50.8   3.8     49       4      14641   352      18      10        1.5    .5      66      17
  70.0     33         61.0   4.3     39       4      14608   397      15       9        1.6    .5      62      19
  80.0     33         70.8   4.4     29       4      14441   527      13       8        1.7    .6      59      19
  90.0     33         81.9   3.7     18       4      14074   825      10       5        2.2    .9      52      17
 100.0     33        100.0   0.0      0       0      12839  1147       0       0        5.1   2.6       0       0
```

```
COALBED:LOWER KITTANNING          LOWER KITTANNING             LOWER KITTANNING              LOWER KITTANNING
STATES: 3 MARYLAND                7 OHIO                       33 PA. (BITUMINOUS)           4 WEST VIRGINIA
NUMBER OF SAMPLES: 47
RAW COAL MOISTURE,PERCENT:  1.5
                   SIGMA:  1.4

                              ASH, PERCENT                        PYRITIC SULFUR, PERCENT             TOTAL SULFUR, PERCENT
                          RAW:  15.0     SIGMA:   6.5          RAW:  2.16     SIGMA:   1.5        RAW:  3.01     SIGMA:   1.7

  BTU    NO OF          AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA  REDUCTION SIGMA     AVERAGE SIGMA  REDUCTION SIGMA
RECOVERY SAMPLES
.........................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.............................................
  50.0      30              4.6    1.6       70      11            .45    .4       69      27        1.25    .6       43      29
  60.0      36              5.1    1.9       67      12            .51    .5       68      27        1.33    .6       45      27
  70.0      43              5.5    2.3       63      13            .62    .5       66      24        1.45    .7       44      24
  80.0      47              6.3    2.9       56      14            .74    .6       62      22        1.56    .8       39      23
  90.0      47              8.3    4.0       43      12           1.01    .8       51      19        1.83   1.0       32      19
 100.0      47             15.0    6.7        0       0           2.15   1.5        0       0        3.01   1.7        0       0
...........................................SAMPLE CRUSHED TO PASS 3/8 INCH...............................................
  50.0      15              4.4    1.5       72      10            .28    .3       74      18         .99    .5       33      35
  60.0      29              4.3    1.7       73      11            .34    .3       79      17        1.14    .5       46      31
  70.0      39              4.7    2.0       70      12            .39    .4       77      17        1.18    .5       48      28
  80.0      45              5.5    2.7       63      13            .49    .4       73      18        1.30    .6       45      26
  90.0      47              7.4    4.1       50      13            .71    .6       64      19        1.50    .8       41      23
 100.0      47             15.0    6.7        0       0           2.14   1.5        0       0        2.98   1.7        0       0
...........................................SAMPLE CRUSHED TO PASS 14 MESH................................................
  50.0      27              3.5    1.2       79       7            .26    .2       80      20        1.04    .4       48      31
  60.0      35              3.7    1.4       76       8            .28    .2       81      18        1.06    .4       52      30
  70.0      45              4.0    1.8       72      10            .31    .3       80      17        1.10    .4       51      28
  80.0      46              5.1    2.4       65      10            .40    .3       77      17        1.20    .5       49      26
  90.0      46              7.3    3.8       52      11            .63    .5       68      18        1.42    .7       43      24
 100.0      47             14.9    6.4        0       0           2.18   1.5        0       0        3.04   1.8        0       0

                             WEIGHT, PERCENT                          BTU PER POUND                  POUNDS OF SO2/M BTU
                          RAW: 100.0     SIGMA:   0.0          RAW: 12783     SIGMA:  1042        RAW:   4.8     SIGMA:   2.8

  BTU    NO OF          AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA  %INCREASE SIGMA     AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
........................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..............................................
  50.0      30             43.1    3.5       57       3          14200    570      15      11         1.8    .8       50      27
  60.0      36             52.3    3.9       48       4          14159    573      14      10         1.9    .9       51      25
  70.0      43             62.1    4.2       38       4          14160    620      12       9         2.1   1.0       50      23
  80.0      47             72.5    4.6       28       5          14053    659      10       8         2.2   1.2       44      21
  90.0      47             83.5    3.9       16       4          13750    818       8       5         2.7   1.5       37      19
 100.0      47            100.0    0.0        0       0          12781   1066       0       0         4.8   2.8        0       0
..........................................SAMPLE CRUSHED TO PASS 3/8 INCH................................................
  50.0      15             42.8    3.8       57       4          14228    588      17      12         1.4    .7       41      32
  60.0      29             51.6    4.2       48       4          14297    526      16      11         1.6    .7       53      28
  70.0      39             61.2    4.3       39       4          14289    564      14       9         1.7    .7       54      25
  80.0      45             71.5    4.5       29       4          14192    636      12       8         1.8    .9       51      25
  90.0      47             82.7    3.9       17       4          13884    810       9       5         2.2   1.2       45      22
 100.0      47            100.0    0.0        0       0          12776   1058       0       0         4.7   2.8        0       0
...........................................SAMPLE CRUSHED TO PASS 14 MESH................................................
  50.0      27             42.5    3.2       58       3          14499    507      17      10         1.4    .6       55      28
  60.0      35             51.7    3.5       48       3          14387    534      15       9         1.5    .6       58      27
  70.0      45             61.5    3.9       38       4          14395    554      14       8         1.6    .6       56      25
  80.0      46             71.4    4.1       29       4          14241    610      12       7         1.7    .7       54      24
  90.0      46             82.4    3.5       18       4          13918    791       9       5         2.1   1.0       48      22
 100.0      47            100.0    0.0        0       0          12791   1024       0       0         4.8   2.9        0       0
```

```
             SOUTHERN APPALACHIAN REGION
 NUMBER OF SAMPLES:  35
 RAW COAL MOISTURE,PERCENT:  1.8
                   SIGMA:   .8

                          ASH, PERCENT                  PYRITIC SULFUR, PERCENT            TOTAL SULFUR, PERCENT
                    RAW:  11.0    SIGMA:   6.0        RAW:   .37    SIGMA:    .4         RAW:  1.04    SIGMA:    .6

   BTU     NO OF        AVERAGE SIGMA  REDUCTION SIGMA     AVERAGE SIGMA  REDUCTION SIGMA     AVERAGE SIGMA  REDUCTION SIGMA
 RECOVERY SAMPLES
.....................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.....................................
   50.0     10             3.8    .4      70      7        .18    .2       45     31        1.09    .6        6     22
   60.0     15             4.0    .8      67     10        .16    .2       53     30        1.03    .5       10     19
   70.0     23             3.9   1.3      65     14        .14    .2       51     30         .91    .4        7     16
   80.0     30             4.0   1.8      62     16        .14    .1       50     29         .88    .4        9     16
   90.0     33             4.7   2.3      55     16        .17    .2       44     26         .90    .4        9     15
  100.0     35            10.9   5.9       0      0        .36    .4        0      0        1.04    .6        0      0
.......................................................SAMPLE CRUSHED TO PASS 3/8 INCH.........................................
   50.0     11             3.5    .6      73      7        .18    .2       56     30        1.04    .5        9     20
   60.0     13             3.7    .7      71      9        .17    .2       57     29        1.05    .5       10     19
   70.0     17             3.7   1.2      70     12        .15    .2       56     28         .97    .5       10     18
   80.0     29             3.7   1.7      65     15        .12    .1       55     32         .86    .4       11     17
   90.0     34             4.3   2.3      58     17        .16    .2       48     26         .88    .4       10     15
  100.0     35            11.0   6.2       0      0        .37    .4        0      0        1.04    .7        0      0
.......................................................SAMPLE CRUSHED TO PASS 14 MESH.........................................
   50.0      9             3.0    .7      77      7        .07    .1       61     30         .81    .2        2     18
   60.0     17             3.0    .9      74      9        .11    .1       65     26         .93    .4       11     20
   70.0     27             2.9   1.3      71     13        .11    .1       62     27         .87    .3       10     19
   80.0     33             3.3   1.7      68     13        .11    .1       62     26         .85    .3       12     18
   90.0     34             4.3   2.2      60     13        .15    .2       55     25         .87    .4       11     15
  100.0     35            11.0   5.9       0      0        .38    .5        0      0        1.05    .7        0      0

                         WEIGHT, PERCENT                      BTU PER POUND                POUNDS OF SO2/M BTU
                    RAW: 100.0    SIGMA:   0.0        RAW: 13314    SIGMA:   926         RAW:   1.6    SIGMA:   1.0

   BTU     NO OF        AVERAGE SIGMA  REDUCTION SIGMA     AVERAGE SIGMA  %INCREASE SIGMA     AVERAGE SIGMA  %REDUCTION SIGMA
 RECOVERY SAMPLES
...................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.......................................
   50.0     10            44.2   1.9      56      2      14183   216       11      5         1.5    .8       16     17
   60.0     15            53.4   2.8      47      3      14182   235       11      6         1.5    .7       19     16
   70.0     23            63.0   4.1      37      4      14315   380       10      8         1.3    .6       17     14
   80.0     30            73.1   4.3      27      4      14315   389        9      7         1.2    .6       17     14
   90.0     33            83.5   4.5      16      5      14237   434        8      6         1.3    .6       15     13
  100.0     35           100.0   0.0       0      0      13321   921        0      0         1.6   1.0        0      0
.....................................................SAMPLE CRUSHED TO PASS 3/8 INCH..........................................
   50.0     11            44.1   2.0      56      2      14299   253       12      5         1.5    .7       20     16
   60.0     13            53.3   2.4      47      2      14216   235       11      5         1.5    .7       19     15
   70.0     17            62.3   3.7      38      4      14260   323       12      7         1.4    .7       19     16
   80.0     29            72.8   4.7      27      5      14375   382       10      8         1.2    .6       18     15
   90.0     34            83.3   4.8      17      5      14293   418        8      7         1.2    .6       16     13
  100.0     35           100.0   0.0       0      0      13309   960        0      0         1.6   1.0        0      0
......................................................SAMPLE CRUSHED TO PASS 14 MESH..........................................
   50.0      9            44.0   1.7      56      2      14385   330       12      5         1.1    .3       13     15
   60.0     17            53.5   2.7      47      3      14408   340       11      6         1.3    .6       20     17
   70.0     27            63.0   4.0      37      4      14461   340       11      8         1.2    .5       19     16
   80.0     33            72.9   4.1      27      4      14427   357       10      7         1.2    .5       20     15
   90.0     34            83.3   4.3      17      4      14297   413        8      6         1.2    .5       18     13
  100.0     35           100.0   0.0       0      0      13312   923        0      0         1.6   1.0        0      0
```

```
                  ALABAMA REGION
   NUMBER OF SAMPLES:  10
   RAW COAL MOISTURE.PERCENT:  1.4
                     SIGMA:   .8

                            ASH. PERCENT                     PYRITIC SULFUR. PERCENT                 TOTAL SULFUR. PERCENT
                      RAW:   9.5     SIGMA:   6.2          RAW:   .69     SIGMA:    .8          RAW:  1.33     SIGMA:    .9

   BTU     NO OF        AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA   REDUCTION SIGMA
 RECOVERY SAMPLES
.........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..........................................
   50.0      4             5.4   1.7       66      9         .43    .3      57      13          1.17    .5        23      27
   60.0      5             5.5   2.2       65     13         .45    .4      60      15          1.25    .5        22      20
   70.0      5             6.5   2.5       58     14         .56    .6      51      12          1.36    .7        17      18
   80.0      5             7.8   2.5       50     14         .69    .7      40       7          1.47    .8        13      13
   90.0      7             7.3   4.1       44     16         .64    .8      38      21          1.38    .9        12       9
  100.0     10             9.5   6.4        0      0         .68    .8       0       0          1.33    .9         0       0
..........................................................SAMPLE CRUSHED TO PASS 3/8 INCH.............................................
   50.0      4             4.8   1.8       70     10         .35    .3      62      18          1.12    .4        23      29
   60.0      5             4.9   2.2       68     13         .39    .4      61      18          1.19    .5        23      23
   70.0      5             5.8   2.4       62     14         .50    .5      52      14          1.30    .6        19      19
   80.0      5             7.1   2.5       54     14         .63    .6      42      10          1.41    .7        16      14
   90.0      9             5.6   4.2       49     16         .49    .6      40      18          1.18    .8        12       9
  100.0     10             9.4   6.3        0      0         .68    .8       0       0          1.32   1.0         0       0
..........................................................SAMPLE CRUSHED TO PASS 14 MESH.............................................
   50.0      5             3.8   1.7       76     10         .22    .2      80      11          1.04    .3        32      26
   60.0      5             4.4   2.2       72     12         .27    .2      75      10          1.08    .3        30      25
   70.0      5             5.3   2.4       66     14         .35    .3      69       9          1.15    .4        28      23
   80.0      6             5.9   3.0       56     12         .42    .4      59       7          1.18    .5        25      17
   90.0     10             5.0   4.1       50     14         .36    .5      51      14          1.03    .6        17      12
  100.0     10             9.6   6.4        0      0         .71    .8       0       0          1.35   1.0         0       0

                           WEIGHT. PERCENT                      BTU PER POUND                       POUNDS OF SO2/M BTU
                      RAW: 100.0     SIGMA:   0.0          RAW: 13696     SIGMA:   883          RAW:   2.0     SIGMA:   1.5

   BTU     NO OF        AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  %INCREASE SIGMA        AVERAGE SIGMA  %REDUCTION SIGMA
 RECOVERY SAMPLES
.......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES............................................
   50.0      4            44.1   1.0       56      1        14351   135      11       2           1.6    .7        31      25
   60.0      5            53.5   1.1       46      1        14266   153      11       2           1.7    .8        30      19
   70.0      5            63.3   1.5       37      1        14143   181      10       2           1.9    .9        25      16
   80.0      5            73.5   1.7       27      2        13991   225       9       2           2.1   1.2        21      11
   90.0      7            85.0   2.3       15      2        14050   585       6       3           2.0   1.3        17       7
  100.0     10           100.0   0.0        0      0        13699   915       0       0           2.0   1.5         0       0
.........................................................SAMPLE CRUSHED TO PASS 3/8 INCH..............................................
   50.0      4            44.0    .8       56      1        14459   153      12       2           1.5    .6        32      26
   60.0      5            53.2   1.1       47      1        14363   154      11       2           1.6    .6        32      20
   70.0      5            62.8   1.5       37      1        14241   171      11       2           1.8    .8        28      16
   80.0      5            73.0   1.7       27      2        14098   226       9       2           2.0   1.0        23      12
   90.0      9            85.5   2.7       15      3        14290   637       5       3           1.7   1.1        17       9
  100.0     10           100.0   0.0        0      0        13705   909       0       0           2.0   1.5         0       0
..........................................................SAMPLE CRUSHED TO PASS 14 MESH.............................................
   50.0      5            43.8    .5       56      1        14589   143      14       1           1.4    .4        40      23
   60.0      5            52.8    .9       47      1        14458   152      12       1           1.5    .4        38      22
   70.0      5            62.4   1.2       38      1        14316   188      11       2           1.6    .5        35      20
   80.0      6            73.6   2.7       26      3        14188   219       9       4           1.7    .7        31      15
   90.0     10            85.6   2.9       14      3        14367   619       5       4           1.5    .9        21      13
  100.0     10           100.0   0.0        0      0        13683   923       0       0           2.0   1.5         0       0
```

```
                EASTERN MIDWEST REGION
      NUMBER OF SAMPLES:  95
      RAW COAL MOISTURE.PERCENT:  4.9
                        SIGMA:  2.6

                              ASH. PERCENT                       PYRITIC SULFUR. PERCENT                 TOTAL SULFUR. PERCENT
                         RAW:  14.2      SIGMA:    4.8          RAW:  2.29      SIGMA:    1.0          RAW:  3.92      SIGMA:    1.2

   BTU     NO OF         AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA   REDUCTION SIGMA
RECOVERY SAMPLES
.........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.............................................
   50.0      42              4.7     .9        67      11          .62     .2        73      12            2.39     .5         41      11
   60.0      60              5.0    1.0        65      11          .68     .3        70      13            2.40     .7         39      12
   70.0      75              5.5    1.2        59      12          .73     .3        67      13            2.51     .7         36      12
   80.0      91              6.1    1.6        54      14          .81     .4        63      13            2.57     .7         34      12
   90.0      95              7.4    2.0        45      16         1.01     .5        54      14            2.73     .8         29      11
  100.0      95             14.2    4.8         0       0         2.29    1.0         0       0            3.92    1.2          0       0
...........................................................SAMPLE CRUSHED TO PASS 3/8 INCH...............................................
   50.0      35              4.2    1.1        71      12          .57     .2        73      14            2.35     .6         40      13
   60.0      65              4.4    1.0        69      11          .59     .2        73      13            2.39     .7         40      12
   70.0      79              4.7    1.2        66      12          .63     .3        71      13            2.40     .7         38      13
   80.0      92              5.4    1.4        59      13          .72     .3        66      14            2.47     .7         36      12
   90.0      95              6.7    1.9        50      15          .90     .4        58      15            2.63     .8         31      12
  100.0      95             14.1    4.7         0       0         2.27     .9         0       0            3.89    1.2          0       0
...........................................................SAMPLE CRUSHED TO PASS 14 MESH................................................
   50.0      67              3.6     .9        75      10          .48     .2        78      10            2.17     .7         43      12
   60.0      80              3.9    1.0        72      10          .51     .2        76      10            2.24     .7         42      13
   70.0      86              4.5    1.1        68      10          .58     .2        74      11            2.32     .7         40      12
   80.0      94              5.3    1.5        61      11          .66     .3        69      12            2.40     .7         38      12
   90.0      95              6.8    2.0        51      12          .85     .4        61      12            2.56     .7         34      12
  100.0      95             14.3    4.8         0       0         2.32    1.0         0       0            3.94    1.2          0       0

                               WEIGHT. PERCENT                         BTU PER POUND                      POUNDS OF SO2/M BTU
                         RAW: 100.0      SIGMA:    0.0          RAW: 12189     SIGMA:    749          RAW:    6.5      SIGMA:    2.1

   BTU     NO OF         AVERAGE SIGMA  REDUCTION SIGMA         AVERAGE SIGMA  %INCREASE SIGMA         AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
.......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...............................................
   50.0      42             43.9    3.0        56       3        13464    251        13       9             3.6     .8         47      12
   60.0      60             53.1    3.2        47       3        13412    285        12       8             3.6    1.0         46      12
   70.0      75             63.0    3.6        37       4        13334    294        10       7             3.7    1.0         42      13
   80.0      91             73.0    3.9        27       4        13288    319         9       7             3.9    1.1         39      12
   90.0      95             83.4    4.0        17       4        13140    397         8       6             4.2    1.3         34      12
  100.0      95            100.0    0.0         0       0        12186    759         0       0             6.5    2.1          0       0
..........................................................SAMPLE CRUSHED TO PASS 3/8 INCH................................................
   50.0      35             43.5    2.9        57       3        13498    267        14       9             3.5     .9         47      14
   60.0      65             52.9    3.1        47       3        13498    265        13       7             3.5    1.0         46      13
   70.0      79             62.4    3.4        38       3        13437    267        12       7             3.6    1.0         45      13
   80.0      92             72.5    3.8        28       4        13387    287        10       7             3.7    1.1         42      13
   90.0      95             82.9    3.9        17       4        13236    381         9       5             4.0    1.2         37      12
  100.0      95            100.0    0.0         0       0        12209    737         0       0             6.4    2.1          0       0
...........................................................SAMPLE CRUSHED TO PASS 14 MESH................................................
   50.0      67             43.3    2.6        57       3        13593    252        14       8             3.2    1.1         50      12
   60.0      80             52.7    3.0        47       3        13558    268        13       7             3.3    1.1         48      13
   70.0      86             62.2    3.3        38       3        13497    271        12       7             3.4    1.1         47      12
   80.0      94             72.2    3.6        28       4        13421    303        11       6             3.6    1.1         44      12
   90.0      95             82.7    3.6        17       4        13225    398         9       5             3.9    1.2         39      12
  100.0      95            100.0    0.0         0       0        12172    758         0       0             6.5    2.2          0       0
```

COALBED: NO. VI NO. 12
STATE: 6 INDIANA 6 KENTUCKY (WEST)
NUMBER OF SAMPLES: 12
RAW COAL MOISTURE,PERCENT: 4.8
SIGMA: 2.9

		ASH, PERCENT				PYRITIC SULFUR, PERCENT				TOTAL SULFUR, PERCENT			
		RAW: 15.9		SIGMA: 2.4		RAW: 2.48		SIGMA: .5		RAW: 3.87		SIGMA: .6	
BTU RECOVERY	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	9	5.3	.7	67	5	.79	.3	68	14	2.25	.5	43	13
60.0	10	6.0	.8	63	5	.84	.3	66	14	2.31	.4	41	12
70.0	12	6.6	1.2	59	7	.90	.3	63	13	2.37	.5	39	12
80.0	12	7.8	1.6	51	8	1.04	.3	57	14	2.51	.5	35	11
90.0	12	9.4	1.9	41	9	1.23	.3	49	14	2.70	.5	30	11
100.0	12	16.0	2.6	0	0	2.51	.6	0	0	3.90	.7	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	9	4.5	.7	72	4	.71	.2	71	11	2.21	.5	44	11
60.0	11	5.1	.9	68	5	.74	.2	69	12	2.27	.5	42	11
70.0	12	5.8	1.3	64	7	.83	.2	65	12	2.32	.5	39	11
80.0	12	7.0	1.5	56	8	.98	.3	59	12	2.46	.5	35	10
90.0	12	8.7	1.7	45	8	1.18	.3	51	13	2.65	.5	30	10
100.0	12	15.9	2.3	0	0	2.45	.5	0	0	3.83	.6	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	11	3.8	.8	76	7	.56	.1	77	7	2.04	.5	47	10
60.0	12	4.2	.9	73	5	.65	.2	73	9	2.17	.5	43	11
70.0	12	5.2	1.1	67	6	.74	.2	69	10	2.27	.5	41	10
80.0	12	6.6	1.2	58	6	.89	.2	63	10	2.41	.5	37	10
90.0	12	8.4	1.5	47	7	1.10	.2	54	11	2.58	.4	33	10
100.0	12	15.9	2.5	0	0	2.48	.5	0	0	3.86	.6	0	0

		WEIGHT, PERCENT				BTU PER POUND				POUNDS OF SO2/M BTU			
		RAW: 100.0		SIGMA: 0.0		RAW: 11906		SIGMA: 274		RAW: 6.5		SIGMA: 1.1	
BTU RECOVERY	NO OF SAMPLES	AVERAGE	SIGMA	REDUCTION	SIGMA	AVERAGE	SIGMA	%INCREASE	SIGMA	AVERAGE	SIGMA	%REDUCTION	SIGMA
SAMPLE CRUSHED TO PASS 1-1/2 INCHES													
50.0	9	43.8	1.3	56	1	13287	96	12	3	3.3	.7	50	12
60.0	10	53.0	1.4	47	1	13208	122	12	3	3.5	.6	47	11
70.0	12	62.8	1.5	37	1	13144	153	11	2	3.6	.7	45	11
80.0	12	72.9	1.6	27	2	13017	170	9	2	3.8	.7	41	11
90.0	12	83.5	1.8	16	2	12822	224	8	2	4.2	.8	35	11
100.0	12	100.0	0.0	0	0	11897	297	0	0	6.6	1.2	0	0
SAMPLE CRUSHED TO PASS 3/8 INCH													
50.0	9	43.7	1.1	56	1	13432	82	13	3	3.3	.7	51	10
60.0	11	52.9	1.2	47	1	13358	116	12	2	3.4	.8	48	11
70.0	12	62.4	1.3	38	1	13266	140	11	2	3.5	.8	46	10
80.0	12	72.4	1.5	28	1	13135	155	10	2	3.7	.8	41	10
90.0	12	83.0	1.6	17	2	12921	197	8	2	4.1	.8	36	10
100.0	12	100.0	0.0	0	0	11913	264	0	0	6.4	1.1	0	0
SAMPLE CRUSHED TO PASS 14 MESH													
50.0	11	43.1	1.0	57	1	13556	94	14	3	3.0	.7	54	9
60.0	12	52.4	1.3	48	1	13459	98	13	3	3.2	.8	50	10
70.0	12	62.0	1.4	38	1	13352	99	12	2	3.4	.7	47	10
80.0	12	72.1	1.5	28	2	13209	122	11	2	3.6	.7	43	10
90.0	12	82.7	1.6	17	2	12954	158	9	2	4.0	.7	38	10
100.0	12	100.0	0.0	0	0	11908	284	0	0	6.5	1.1	0	0

```
COALBED:   NO. 6
STATE:     ILLINOIS
NUMBER OF SAMPLES: 28
RAW COAL MOISTURE,PERCENT:  5.6
                   SIGMA:  2.7

                          ASH, PERCENT                       PYRITIC SULFUR, PERCENT              TOTAL SULFUR, PERCENT
                     RAW:  15.3    SIGMA:   4.3           RAW:  2.14     SIGMA:   1.1          RAW:  3.74     SIGMA:   1.5

  BTU     NO OF        AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA  REDUCTION SIGMA
RECOVERY SAMPLES
...................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.........................................
  50.0      14           4.8    .8       67      12          .54     .1       71      14           2.47    .7        36      12
  60.0      20           4.9    .8       66      12          .60     .2       67      15           2.38    .8        34      13
  70.0      23           5.4    .9       62      12          .61     .2       65      15           2.42    .8        31      13
  80.0      26           6.2   1.2       56      13          .71     .3       60      15           2.45    .9        30      12
  90.0      28           7.5   1.5       48      15          .89     .4       53      16           2.61    .9        27      12
 100.0      28          15.3   4.3        0       0         2.13    1.1        0       0           3.72   1.5         0       0
.....................................................SAMPLE CRUSHED TO PASS 3/8 INCH............................................
  50.0      10           4.3    .9       68      14          .54     .2       67      21           2.64    .8        31      13
  60.0      19           4.2    .8       71      12          .53     .2       70      18           2.43    .8        35      14
  70.0      24           4.5   1.0       69      12          .55     .2       69      17           2.37    .8        34      13
  80.0      28           5.2   1.1       63      13          .63     .2       64      18           2.39    .8        33      13
  90.0      28           6.6   1.3       53      14          .78     .3       57      18           2.51    .9        30      13
 100.0      28          15.2   4.3        0       0         2.13    1.1        0       0           3.73   1.5         0       0
.....................................................SAMPLE CRUSHED TO PASS 14 MESH.............................................
  50.0      23           3.8   1.0       75      10          .49     .2       75      11           2.31    .8        38      13
  60.0      25           4.1   1.1       73      11          .51     .2       73      12           2.30    .8        37      13
  70.0      25           4.6   1.2       70      11          .55     .2       70      13           2.33    .9        36      13
  80.0      28           5.4   1.4       64      11          .61     .2       67      14           2.36    .8        34      13
  90.0      28           6.8   1.6       54      11          .75     .3       61      14           2.46    .9        32      12
 100.0      28          15.5   4.5        0       0         2.17    1.1        0       0           3.76   1.6         0       0

                         WEIGHT, PERCENT                         BTU PER POUND                    POUNDS OF SO2/M BTU
                    RAW: 100.0     SIGMA:   0.0          RAW: 11923     SIGMA:    695          RAW:    6.3     SIGMA:   2.8

  BTU     NO OF        AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA  %INCREASE SIGMA       AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
..................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..........................................
  50.0      14          44.0   2.2       56       2        13341    272       13       5            3.7   1.1        42      13
  60.0      20          52.8   2.8       47       3        13300    284       13       6            3.6   1.2        41      14
  70.0      23          62.4   3.3       38       3        13237    293       11       6            3.6   1.3        38      14
  80.0      26          72.4   3.6       28       4        13170    294       10       6            3.7   1.4        37      13
  90.0      28          82.4   4.0       18       4        13022    316        9       5            4.0   1.5        33      13
 100.0      28         100.0   0.0        0       0        11934    698        0       0            6.3   2.8         0       0
....................................................SAMPLE CRUSHED TO PASS 3/8 INCH.............................................
  50.0      10          44.0   2.5       56       2        13347    237       13       6            4.0   1.2        39      14
  60.0      19          52.3   2.9       48       3        13389    255       14       6            3.7   1.3        42      14
  70.0      24          61.4   3.1       39       3        13351    257       13       6            3.5   1.3        42      13
  80.0      28          71.4   3.7       29       4        13308    273       12       6            3.6   1.3        40      14
  90.0      28          81.7   4.0       18       4        13138    302       10       5            3.8   1.4        36      14
 100.0      28         100.0   0.0        0       0        11939    688        0       0            6.3   2.7         0       0
.....................................................SAMPLE CRUSHED TO PASS 14 MESH.............................................
  50.0      23          43.1   2.3       57       2        13476    271       15       6            3.4   1.3        46      12
  60.0      25          52.1   2.7       48       3        13417    267       14       6            3.4   1.3        45      12
  70.0      25          61.4   3.0       39       3        13351    273       14       6            3.5   1.3        44      13
  80.0      28          71.4   3.4       29       3        13300    328       12       6            3.6   1.3        41      13
  90.0      28          81.6   3.8       18       4        13107    343       10       5            3.8   1.4        38      12
 100.0      28         100.0   0.0        0       0        11897    722        0       0            6.4   2.9         0       0
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```
COALBED:  NO. 6                                                                                  NO. 11
STATE:      28 ILLINOIS                                                                            7 KENTUCKY (WEST)
NUMBER OF SAMPLES: 35
RAW COAL MOISTURE.PERCENT:  5.0
                   SIGMA:  2.7

                                 ASH, PERCENT                      PYRITIC SULFUR, PERCENT                 TOTAL SULFUR, PERCENT
                          RAW:  14.7      SIGMA:    4.3          RAW:  2.22      SIGMA:    1.0          RAW:  3.88      SIGMA:    1.4

  BTU     NO OF         AVERAGE SIGMA  REDUCTION SIGMA          AVERAGE SIGMA  REDUCTION SIGMA          AVERAGE SIGMA   REDUCTION SIGMA
RECOVERY SAMPLES
.............................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES............................................
  50.0      14             4.8     .8        67       12            .54     .1        71       14            2.47     .7         36       12
  60.0      21             4.8     .8        67       12            .60     .2        67       15            2.40     .8         34       13
  70.0      25             5.3    1.0        62       12            .61     .2        65       15            2.47     .8         31       12
  80.0      33             5.7    1.5        58       14            .69     .3        63       15            2.53     .8         31       12
  90.0      35             6.8    1.8        51       15            .88     .4        55       16            2.69     .8         28       12
 100.0      35            14.7    4.3         0        0           2.20    1.0         0        0            3.86    1.4          0        0
..............................................SAMPLE CRUSHED TO PASS 3/8 INCH...............................................
  50.0      10             4.3     .9        68       14            .54     .2        67       21            2.64     .8         31       13
  60.0      20             4.2     .8        71       12            .54     .2        70       18            2.47     .8         35       13
  70.0      26             4.4    1.0        70       12            .56     .2        69       17            2.41     .8         35       13
  80.0      33             4.9    1.2        65       12            .64     .2        66       17            2.46     .8         34       13
  90.0      35             6.2    1.5        55       14            .80     .3        59       17            2.61     .8         30       13
 100.0      35            14.6    4.3         0        0           2.21    1.0         0        0            3.87    1.4          0        0
..............................................SAMPLE CRUSHED TO PASS 14 MESH................................................
  50.0      24             3.7    1.1        75       10            .49     .2        75       11            2.32     .8         39       12
  60.0      26             4.0    1.1        73       11            .51     .2        73       12            2.30     .8         37       13
  70.0      29             4.4    1.2        70       11            .54     .2        72       13            2.38     .8         37       12
  80.0      34             5.0    1.4        65       11            .60     .2        69       14            2.43     .8         35       12
  90.0      35             6.3    1.7        55       11            .75     .3        62       14            2.54     .8         32       12
 100.0      35            14.8    4.5         0        0           2.24    1.1         0        0            3.90    1.5          0        0

                                 WEIGHT, PERCENT                        BTU PER POUND                      POUNDS OF SO2/M BTU
                          RAW: 100.0      SIGMA:    0.0          RAW: 12052      SIGMA:    711          RAW:    6.5      SIGMA:    2.6

  BTU     NO OF         AVERAGE SIGMA  REDUCTION SIGMA          AVERAGE SIGMA  %INCREASE SIGMA          AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
............................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.............................................
  50.0      14            44.0    2.2        56        2          13341    272        13        5            3.7    1.1         42       13
  60.0      21            52.8    2.8        47        3          13331    311        13        6            3.6    1.2         41       13
  70.0      25            62.4    3.2        38        3          13287    330        11        6            3.7    1.3         39       13
  80.0      33            72.4    3.4        28        3          13293    357        10        5            3.8    1.2         37       12
  90.0      35            82.4    3.8        18        4          13151    386         9        5            4.1    1.3         34       13
 100.0      35           100.0    0.0         0        0          12057    710         0        0            6.5    2.5          0        0
..............................................SAMPLE CRUSHED TO PASS 3/8 INCH...............................................
  50.0      10            44.0    2.5        56        2          13347    237        13        6            4.0    1.2         39       14
  60.0      20            52.4    2.8        48        3          13416    275        14        6            3.7    1.3         42       14
  70.0      26            61.5    3.0        39        3          13383    271        13        5            3.6    1.3         42       13
  80.0      33            71.5    3.4        28        3          13373    298        12        5            3.7    1.2         40       13
  90.0      35            81.9    3.8        18        4          13249    355        10        5            3.9    1.3         36       13
 100.0      35           100.0    0.0         0        0          12063    704         0        0            6.5    2.5          0        0
..............................................SAMPLE CRUSHED TO PASS 14 MESH................................................
  50.0      24            43.0    2.2        57        2          13494    281        15        6            3.5    1.3         46       12
  60.0      26            52.1    2.6        48        3          13435    277        14        6            3.4    1.3         45       12
  70.0      29            61.5    2.9        39        3          13415    304        13        5            3.6    1.2         44       12
  80.0      34            71.5    3.2        29        3          13382    349        12        5            3.6    1.2         42       12
  90.0      35            81.8    3.6        18        4          13222    390        10        5            3.9    1.3         38       12
 100.0      35           100.0    0.0         0        0          12035    740         0        0            6.5    2.7          0        0
```

```
COALBED:   NO. 5
STATE:     ILLINOIS
NUMBER OF SAMPLES: 10
RAW COAL MOISTURE,PERCENT:  4.7
                    SIGMA:  2.7

                         ASH, PERCENT                   PYRITIC SULFUR, PERCENT              TOTAL SULFUR, PERCENT
                   RAW:  14.9     SIGMA:   4.8       RAW:  2.08     SIGMA:    .7       RAW:  3.92     SIGMA:    .8

    BTU NO OF   AVERAGE SIGMA REDUCTION  SIGMA   AVERAGE SIGMA REDUCTION  SIGMA   AVERAGE SIGMA REDUCTION  SIGMA
RECOVERY SAMPLES
.......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES......................
   50.0     4       4.3    .7        75      6       .53    .1        80      7      2.45    .6        45      6
   60.0     6       5.0   1.6        70      8       .60    .1        76      6      2.44    .6        42      5
   70.0     9       6.2   1.6        56     17       .58    .2        71     14      2.58    .5        34     11
   80.0    10       7.2   1.4        48     16       .72    .3        65     10      2.65    .6        32     11
   90.0    10       8.5   1.4        39     16       .48    .4        53     12      2.90    .6        26      9
  100.0    10      14.9   5.0         0      0      2.09    .7         0      0      3.92    .8         0      0
.........................................................SAMPLE CRUSHED TO PASS 3/8 INCH........................
   50.0     6       4.6   1.8        70     18       .44    .1        77      9      2.24    .5        40     12
   60.0     9       5.1   1.5        63     15       .44    .1        77      8      2.47    .5        37     12
   70.0    10       5.6   1.3        59     15       .52    .1        73      8      2.53    .5        34     12
   80.0    10       6.5   1.3        53     14       .63    .2        69      3      2.64    .6        32     11
   90.0    10       7.9   1.5        42     14       .86    .3        57      9      2.82    .6        27     10
  100.0    10      14.6   4.9         0      0      2.03    .7         0      0      3.89    .8         0      0
.........................................................SAMPLE CRUSHED TO PASS 14 MESH.........................
   50.0     8       3.9    .8        73     11       .44    .1        76     10      2.22    .4        40     12
   60.0    10       4.4    .8        69     10       .44    .1        77     10      2.40    .4        38     12
   70.0    10       5.0   1.1        65      9       .53    .2        73      8      2.46    .4        37     10
   80.0    10       6.2   1.2        57     10       .63    .3        70      9      2.55    .4        35      9
   90.0    10       7.7   1.3        46     11       .81    .3        61      7      2.73    .5        30      9
  100.0    10      15.1   5.0         0      0      2.12    .8         0      0      3.94    .8         0      0

                         WEIGHT, PERCENT                    BTU PER POUND                 POUNDS OF SO2/M BTU
                   RAW: 100.0     SIGMA:   0.0       RAW: 12046     SIGMA:   615       RAW:   6.5     SIGMA:   1.3

    BTU NO OF   AVERAGE SIGMA REDUCTION  SIGMA   AVERAGE SIGMA %INCREASE  SIGMA   AVERAGE SIGMA %REDUCTION SIGMA
RECOVERY SAMPLES
.......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES......................
   50.0     4      42.4   2.8        56      3     13640    90        16      7       3.6   1.0        53      6
   60.0     6      51.8   2.9        48      3     13379   310        14      6       3.6    .9        49      5
   70.0     9      63.1   4.0        37      4     13193   298        10      7       3.9    .8        40     13
   80.0    10      73.3   4.2        27      4     13076   281         9      7       4.0   1.0        37     13
   90.0    10      83.7   4.5        16      4     12936   286         8      6       4.5   1.0        31     12
  100.0    10     100.0   0.0         0      0     12039   641         0      0       6.5   1.4         0      0
.........................................................SAMPLE CRUSHED TO PASS 3/8 INCH........................
   50.0     6      43.3   3.0        57      3     13496   356        14      7       3.3    .8        47     14
   60.0     9      53.3   3.2        47      3     13384   298        12      7       3.7    .8        42     14
   70.0    10      63.2   3.6        37      4     13272   276        10      6       3.8    .8        40     14
   80.0    10      73.1   3.8        27      4     13181   257         9      6       4.0    .9        37     12
   90.0    10      83.5   4.1        16      4     13015   262         8      6       4.3   1.0        32     12
  100.0    10     100.0   0.0         0      0     12083   627         0      0       6.5   1.4         0      0
.........................................................SAMPLE CRUSHED TO PASS 14 MESH.........................
   50.0     8      43.1   2.5        57      3     13482   274        14      7       3.3    .6        47     13
   60.0    10      52.8   2.9        47      3     13435   241        12      7       3.6    .7        45     13
   70.0    10      62.4   3.3        38      3     13348   224        11      6       3.7    .6        43     12
   80.0    10      72.5   3.6        28      4     13226   200        10      6       3.8    .7        41     10
   90.0    10      82.9   4.0        17      4     13039   200         9      6       4.2    .8        35     10
  100.0    10     100.0   0.0         0      0     12015   642         0      0       6.6   1.4         0      0
```

```
COALBED:   NO. 9
STATE:     KENTUCKY (WEST)
NUMBER OF SAMPLES: 14
RAW COAL MOISTURE,PERCENT:  3.9
                    SIGMA:  1.5

                         ASH, PERCENT                 PYRITIC SULFUR, PERCENT          TOTAL SULFUR, PERCENT
                    RAW:  12.0    SIGMA:   3.0       RAW:  2.28    SIGMA:   .4        RAW:  4.17    SIGMA:   .3
  BTU     NO OF
RECOVERY SAMPLES    AVERAGE SIGMA  REDUCTION SIGMA   AVERAGE SIGMA  REDUCTION SIGMA   AVERAGE SIGMA  REDUCTION SIGMA
..........................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.........................................
  50.0      8          4.3    .2      62     7          .52    .1      77     5          2.46    .2      41     6
  60.0     11          4.5    .3      61     8          .62    .2      73     6          2.53    .2      39     5
  70.0     13          4.9    .5      56     8          .65    .1      70     8          2.65    .3      36     8
  80.0     14          5.7    .7      50    10          .71    .2      68     6          2.72    .2      35     7
  90.0     14          6.9   1.0      40    13          .94    .2      58     8          2.93    .3      30     7
 100.0     14         12.0   3.1       0     0         2.25    .4       0     0          4.18    .3       0     0
..........................................SAMPLE CRUSHED TO PASS 3/8 INCH.............................................
  50.0      4          3.5    .5      71     8          .41    .0      81     3          2.44    .1      39     7
  60.0     11          3.9    .5      68     8          .52    .1      78     4          2.47    .1      41     6
  70.0     13          4.3    .4      63     8          .52    .1      77     5          2.51    .1      39     6
  80.0     14          5.0    .6      56     9          .61    .1      72     6          2.63    .2      37     7
  90.0     14          6.3    .9      45    11          .83    .2      63     8          2.82    .2      32     7
 100.0     14         11.9   3.1       0     0         2.26    .4       0     0          4.16    .3       0     0
..........................................SAMPLE CRUSHED TO PASS 14 MESH..............................................
  50.0      7          2.6    .3      76     6          .36    .1      85     3          2.37    .1      43     4
  60.0     12          3.4    .4      71     7          .44    .1      80     9          2.50    .3      40     8
  70.0     13          4.0    .5      66     6          .52    .2      78     9          2.55    .3      39     9
  80.0     14          4.9    .6      59     7          .61    .1      74     6          2.65    .3      36     8
  90.0     14          6.3   1.0      47     8          .81    .2      65     8          2.79    .3      33     8
 100.0     14         12.2   3.1       0     0         2.32    .4       0     0          4.18    .3       0     0

                        WEIGHT, PERCENT                  BTU PER POUND                  POUNDS OF SO2/M BTU
                    RAW: 100.0    SIGMA:   0.0       RAW: 12612    SIGMA:   522       RAW:   6.6    SIGMA:   .6
  BTU     NO OF
RECOVERY SAMPLES    AVERAGE SIGMA  REDUCTION SIGMA   AVERAGE SIGMA  %INCREASE SIGMA   AVERAGE SIGMA  %REDUCTION SIGMA
..........................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.........................................
  50.0      8         46.1   1.2      54     1        13685   151       8     3          3.6    .3      45     6
  60.0     11         55.1   1.3      45     1        13614   131       8     3          3.7    .3      44     5
  70.0     13         64.9   1.5      35     2        13567   188       7     2          3.9    .4      40     9
  80.0     14         74.5   2.4      26     2        13453   199       7     4          4.0    .4      39     8
  90.0     14         85.0   2.7      15     3        13335   215       6     4          4.4    .3      34     7
 100.0     14        100.0   0.0       0     0        12614   532       0     0          6.6    .7       0     0
..........................................SAMPLE CRUSHED TO PASS 3/8 INCH.............................................
  50.0      4         45.1   1.2      55     1        13808   200      10     3          3.5    .2      44     9
  60.0     11         54.3   1.9      46     2        13704   141      10     4          3.6    .2      46     6
  70.0     13         64.0   2.2      36     2        13614   129       8     4          3.6    .2      45     6
  80.0     14         74.1   2.4      26     2        13554   194       7     4          3.9    .3      41     8
  90.0     14         84.6   2.6      15     3        13421   223       6     3          4.2    .3      36     8
 100.0     14        100.0   0.0       0     0        12629   537       0     0          6.6    .7       0     0
..........................................SAMPLE CRUSHED TO PASS 14 MESH..............................................
  50.0      7         44.3   1.9      56     2        13819   193      12     5          3.4    .2      49     4
  60.0     12         54.2   2.0      46     2        13790   198      10     4          3.6    .4      45     9
  70.0     13         63.7   2.0      36     2        13686   200       9     4          3.7    .4      44     9
  80.0     14         73.8   2.1      26     2        13590   209       8     3          3.9    .4      41     8
  90.0     14         84.4   2.3      16     2        13421   253       7     3          4.2    .4      37     8
 100.0     14        100.0   0.0       0     0        12591   536       0     0          6.7    .6       0     0
```

```
COALBED:  NO. 5                                              NO. V                                       NO. 9
STATE:    10 ILLINOIS                                         8 INDIANA                                  14 KENTUCKY (WEST)
NUMBER OF SAMPLES: 32
RAW COAL MOISTURE.PERCENT:  4.8
                    SIGMA:  2.2

                              ASH. PERCENT                         PYRITIC SULFUR. PERCENT                 TOTAL SULFUR. PERCENT
                        RAW:  12.6      SIGMA:    4.2           RAW:  2.17      SIGMA:    .7            RAW:  4.00      SIGMA:    .7

   BTU     NO OF           AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA   REDUCTION SIGMA
RECOVERY SAMPLES
..............................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...................................
  50.0      16               4.6    .7       64      10             .58    .1       76       7           2.49    .3         42      7
  60.0      21               4.9   1.0       62      10             .66    .2       72       7           2.54    .3         40      6
  70.0      28               5.5   1.2       54      12             .67    .2       69      11           2.64    .3         35     10
  80.0      32               6.3   1.3       47      12             .73    .3       65       9           2.67    .5         33     10
  90.0      32               7.4   1.5       38      13             .97    .3       55      10           2.88    .5         28      9
 100.0      32              12.6   4.2        0       0            2.17    .7        0       0           4.01    .7          0      0
...............................................................SAMPLE CRUSHED TO PASS 3/8 INCH......................................
  50.0      13               4.2   1.3       70      13             .47    .1       78       8           2.35    .4         40     11
  60.0      25               4.4   1.1       65      11             .52    .1       77       7           2.48    .3         39      9
  70.0      29               4.9   1.0       60      11             .56    .1       74       9           2.53    .3         37     10
  80.0      32               5.6   1.2       52      11             .64    .2       69       9           2.60    .4         34     10
  90.0      32               6.8   1.4       42      12             .86    .3       59      10           2.78    .5         29      9
 100.0      32              12.4   4.1        0       0            2.14    .7        0       0           3.98    .7          0      0
...............................................................SAMPLE CRUSHED TO PASS 14 MESH.......................................
  50.0      22               3.4    .8       72      10             .42    .1       79       9           2.27    .4         42      9
  60.0      29               3.9    .8       68       9             .46    .1       78      10           2.41    .4         39     10
  70.0      30               4.5   1.0       64       8             .54    .2       74       9           2.47    .4         38      9
  80.0      32               5.4   1.2       55       9             .63    .2       70      10           2.58    .4         35      9
  90.0      32               6.8   1.5       44      10             .82    .3       61       9           2.74    .5         31      9
 100.0      32              12.7   4.3        0       0            2.19    .7        0       0           4.02    .7          0      0

                             WEIGHT. PERCENT                          BTU PER POUND                        POUNDS OF SO2/M BTU
                        RAW: 100.0      SIGMA:    0.0          RAW: 12474      SIGMA:    625           RAW:   6.5      SIGMA:   1.3

   BTU     NO OF           AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  %INCREASE SIGMA        AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
...........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.......................................
  50.0      16              45.0   2.4       55       2           13622   162       10       6            3.7    .5         47      8
  60.0      21              54.1   2.4       46       2           13506   225       10       5            3.8    .5         45      7
  70.0      28              64.4   2.8       36       3           13399   272        8       5            3.9    .5         40     11
  80.0      32              74.5   3.1       26       3           13310   284        7       5            4.0    .8         37     11
  90.0      32              85.0   3.4       15       3           13188   298        6       5            4.4    .8         32     10
 100.0      32             100.0   0.0        0       0           12469   633        0       0            6.5   1.3          0      0
..............................................................SAMPLE CRUSHED TO PASS 3/8 INCH.......................................
  50.0      13              44.2   2.4       56       2           13623   302       12       6            3.4    .6         46     12
  60.0      25              54.1   2.5       46       3           13564   252       10       5            3.7    .5         44     10
  70.0      29              63.9   2.8       36       3           13469   244        9       5            3.7    .5         42     11
  80.0      32              74.1   3.0       26       3           13416   269        8       5            3.9    .7         39     11
  90.0      32              84.6   3.3       15       3           13276   292        6       4            4.2    .7         33     10
 100.0      32             100.0   0.0        0       0           12497   620        0       0            6.4   1.3          0      0
...............................................................SAMPLE CRUSHED TO PASS 14 MESH.......................................
  50.0      22              44.2   2.3       56       2           13669   261       11       6            3.3    .6         48     10
  60.0      29              53.9   2.4       46       2           13635   259       10       5            3.5    .6         45     11
  70.0      30              63.6   2.6       36       3           13548   253        9       5            3.6    .6         44     10
  80.0      32              73.8   2.8       26       3           13451   261        8       5            3.8    .6         40     10
  90.0      32              84.3   3.1       16       3           13285   293        7       4            4.1    .7         36     10
 100.0      32             100.0   0.0        0       0           12454   642        0       0            6.5   1.3          0      0
```

```
                WESTERN MIDWEST REGION
     NUMBER OF SAMPLES: 44
     RAW COAL MOISTURE,PERCENT:  4.0
                          SIGMA:  3.7

                             ASH, PERCENT                       PYRITIC SULFUR, PERCENT               TOTAL SULFUR, PERCENT
                        RAW:  16.2     SIGMA:   6.6          RAW:  3.58     SIGMA:   1.9          RAW:  5.25     SIGMA:   2.3

   BTU     NO OF        AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  REDUCTION SIGMA
RECOVERY SAMPLES
......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..........................................
  50.0     22              7.0   2.7      60      11          1.58    .9       62      13          3.17   1.2       43       8
  60.0     32              7.3   2.7      58      13          1.58    .9       61      13          3.33   1.2       41       9
  70.0     38              7.7   2.8      55      13          1.66    .9       58      13          3.55   1.3       37      11
  80.0     39              8.6   3.1      49      13          1.90   1.0       51      14          3.76   1.4       33      11
  90.0     44              9.5   4.0      41      13          2.15   1.3       41      16          3.91   1.8       25      12
 100.0     44             16.2   6.7       0       0          3.58   1.9        0       0          5.26   2.3        0       0
........................................................SAMPLE CRUSHED TO PASS 3/8 INCH.............................................
  50.0     26              5.7   1.9      67      11          1.26    .6       69      12          3.04   1.1       47       9
  60.0     32              6.0   2.1      64      10          1.31    .6       67      12          3.24   1.2       44      11
  70.0     37              6.5   2.4      62      12          1.38    .7       64      13          3.29   1.2       41      11
  80.0     40              7.2   2.9      56      12          1.57    .8       58      14          3.45   1.3       37      11
  90.0     43              8.6   3.9      47      13          1.93   1.2       48      17          3.74   1.7       29      13
 100.0     44             16.0   6.7       0       0          3.53   1.9        0       0          5.19   2.3        0       0
........................................................SAMPLE CRUSHED TO PASS 14 MESH..............................................
  50.0     33              4.6   1.6      73       9           .92    .4       77       9          2.96   1.2       49      12
  60.0     37              5.2   1.8      69      10          1.02    .6       74      11          2.97   1.2       47      11
  70.0     38              6.0   2.2      64      10          1.18    .6       70      12          3.08   1.2       45      11
  80.0     41              6.9   2.8      59      11          1.41    .8       64      13          3.28   1.3       41      11
  90.0     43              8.7   4.2      49      11          1.87   1.2       52      17          3.67   1.7       32      13
 100.0     44             16.4   6.7       0       0          3.63   1.9        0       0          5.30   2.3        0       0

                           WEIGHT, PERCENT                         BTU PER POUND                    POUNDS OF SO2/M BTU
                        RAW: 100.0     SIGMA:   0.0          RAW: 12072     SIGMA:  1223          RAW:   9.0     SIGMA:   4.5

   BTU     NO OF        AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  %INCREASE SIGMA        AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
......................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..........................................
  50.0     22             43.5   3.1      56       3         13507   704       14       9           4.8   2.0       50       8
  60.0     32             52.6   3.5      47       4         13307   736       14       9           5.1   2.1       48       8
  70.0     38             62.2   3.8      38       4         13210   716       12       8           5.5   2.2       44      10
  80.0     39             72.2   4.2      28       4         13078   744       11       7           5.8   2.3       39      10
  90.0     44             83.3   4.5      17       4         13016   939        8       6           6.2   3.2       30      11
 100.0     44            100.0   0.0       0       0         12069  1233        0       0           9.0   4.6        0       0
........................................................SAMPLE CRUSHED TO PASS 3/8 INCH.............................................
  50.0     26             42.9   3.3      57       3         13545   647       16      10           4.5   1.8       55       8
  60.0     32             52.3   3.6      48       4         13404   615       15       9           4.9   1.9       51      10
  70.0     37             61.5   3.9      39       4         13372   662       14       8           5.0   2.0       48       9
  80.0     40             71.5   4.3      28       4         13303   723       12       7           5.3   2.2       44      10
  90.0     43             82.4   4.4      18       4         13114   879        9       6           5.9   3.0       35      12
 100.0     44            100.0   0.0       0       0         12101  1231        0       0           8.9   4.5        0       0
........................................................SAMPLE CRUSHED TO PASS 14 MESH..............................................
  50.0     33             42.6   3.0      57       3         13597   554       17       9           4.4   1.8       57      10
  60.0     37             51.7   3.4      48       3         13541   594       16       9           4.4   1.9       54      10
  70.0     38             61.1   3.8      39       4         13428   616       14       8           4.6   2.0       52      10
  80.0     41             71.0   4.1      29       4         13346   700       13       7           5.0   2.1       47      10
  90.0     43             82.2   3.7      18       4         13084   923       10       5           5.8   3.0       38      11
 100.0     44            100.0   0.0       0       0         12045  1235        0       0           9.1   4.6        0       0
```

```
            WESTERN REGION
  NUMBER OF SAMPLES:  44
  RAW COAL MOISTURE,PERCENT:  8.5
                       SIGMA:  5.4

                             ASH, PERCENT                     PYRITIC SULFUR, PERCENT                 TOTAL SULFUR, PERCENT
                       RAW:   8.9     SIGMA:   4.3           RAW:   .23    SIGMA:    .3              RAW:   .68    SIGMA:    .3

   BTU     NO OF       AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  REDUCTION SIGMA          AVERAGE SIGMA   REDUCTION SIGMA
RECOVERY SAMPLES
...................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES.........................................
   50.0     14           5.1    1.5       58      9            .09    .1       33     24               .55    .1          3      6
   60.0     16           5.4    1.4       55     10            .09    .1       27     24               .55    .1          2      6
   70.0     25           5.4    1.7       50      9            .10    .1       40     33               .52    .1         12     23
   80.0     34           5.4    2.1       46     12            .09    .1       33     29               .51    .1         10     20
   90.0     39           6.1    2.6       37     11            .10    .1       33     29               .54    .1         11     20
  100.0     44           9.3    4.6        0      0            .23    .3        0      0               .68    .3          0      0
.....................................................SAMPLE CRUSHED TO PASS 3/8 INCH............................................
   50.0     16           4.7    1.2       58     12            .07    .0       46     31               .53    .1          4      8
   60.0     24           4.6    1.3       55     11            .07    .0       47     33               .50    .1         13     22
   70.0     28           4.8    1.6       52     11            .08    .0       42     32               .50    .1         11     21
   80.0     39           4.6    2.1       50     12            .08    .0       41     29               .53    .1         12     20
   90.0     41           5.4    2.6       41     11            .09    .0       38     28               .56    .2         11     19
  100.0     44           9.0    4.5        0      0            .23    .3        0      0               .67    .3          0      0
.....................................................SAMPLE CRUSHED TO PASS 14 MESH.............................................
   50.0     19           3.8    1.1       56     13            .06    .0       64     27               .50    .1         21     22
   60.0     20           4.0    1.2       55     12            .06    .0       61     27               .50    .1         20     22
   70.0     25           3.9    1.2       55     11            .06    .0       58     26               .51    .1         18     21
   80.0     31           3.9    1.6       54     12            .07    .0       53     26               .53    .2         17     20
   90.0     33           4.5    2.0       47     11            .07    .0       50     26               .53    .2         16     19
  100.0     34           8.3    3.4        0      0            .25    .3        0      0               .69    .4          0      0

                            WEIGHT, PERCENT                        BTU PER POUND                      POUNDS OF SO2/M BTU
                       RAW: 100.0    SIGMA:    0.0           RAW: 12437     SIGMA:    803             RAW:   1.1     SIGMA:    .6

   BTU     NO OF       AVERAGE SIGMA  REDUCTION SIGMA        AVERAGE SIGMA  %INCREASE SIGMA          AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
..................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES..........................................
   50.0     14          44.2    2.3       56      2          12926    414        9      5               .8    .2         12      9
   60.0     16          54.0    2.6       46      3          12976    549        8      5               .8    .2         11      9
   70.0     25          64.8    2.6       35      3          12837    629        6      4               .8    .2         19     21
   80.0     34          75.3    2.4       25      2          12900    656        5      4               .8    .2         15     19
   90.0     39          86.1    2.2       14      2          12775    678        4      3               .8    .2         15     19
  100.0     44         100.0    0.0        0      0          12373    833        0      0              1.1    .6          0      0
....................................................SAMPLE CRUSHED TO PASS 3/8 INCH.............................................
   50.0     16          44.6    2.3       55      2          12941    420        9      6               .8    .2         13      9
   60.0     24          54.8    2.4       45      2          12833    465        7      5               .8    .2         20     21
   70.0     28          64.8    2.4       35      2          12881    582        7      4               .8    .2         18     20
   80.0     39          75.4    2.3       25      2          12947    664        5      3               .8    .2         16     18
   90.0     41          86.1    2.2       14      2          12852    663        4      3               .9    .3         15     18
  100.0     44         100.0    0.0        0      0          12408    823        0      0              1.1    .6          0      0
....................................................SAMPLE CRUSHED TO PASS 14 MESH.............................................
   50.0     19          45.9    1.8       54      2          12865    528        6      4               .8    .2         27     21
   60.0     20          55.4    1.7       45      2          12870    528        6      3               .8    .2         25     21
   70.0     25          65.4    1.7       35      2          13017    644        6      3               .8    .2         23     20
   80.0     31          75.5    1.6       24      2          13103    675        5      2               .8    .3         21     19
   90.0     33          86.1    1.6       14      2          13077    708        4      2               .8    .3         19     19
  100.0     34         100.0    0.0        0      0          12559    744        0      0              1.1    .6          0      0
```

SUMMARY

```
                                     S U M M A R Y
NUMBER OF SAMPLES:  455
RAW COAL MOISTURE.PERCENT:  3.2
                    SIGMA:  3.4

                           ASH. PERCENT                       PYRITIC SULFUR. PERCENT             TOTAL SULFUR. PERCENT
                      RAW:  14.0      SIGMA:   6.3           RAW:  1.91     SIGMA:   1.5         RAW:  3.02     SIGMA:   1.9

   BTU     NO OF         AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA   REDUCTION SIGMA
RECOVERY SAMPLES
..........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...................................
  50.0      248            5.2    2.2       66       12        .61     .6       67       21         1.79    1.0        38       22
  60.0      317            5.5    2.3       63       13        .66     .6       65       21         1.86    1.1        37       20
  70.0      378            5.9    2.4       59       13        .71     .6       62       21         1.92    1.2        35       20
  80.0      423            6.6    2.8       53       14        .80     .7       56       21         1.99    1.2        31       19
  90.0      444            7.9    3.5       43       15       1.00     .9       46       20         2.16    1.4        25       17
 100.0      455           14.1    6.4        0        0       1.89    1.5        0        0         3.00    1.9         0        0
..........................................................SAMPLE CRUSHED TO PASS 3/8 INCH........................................
  50.0      211            4.7    1.9       69       11        .51     .5       71       21         1.73    1.1        37       23
  60.0      306            4.8    2.0       67       12        .52     .5       71       20         1.78    1.1        39       22
  70.0      365            5.2    2.2       64       13        .57     .5       69       20         1.79    1.1        38       22
  80.0      426            5.8    2.6       58       14        .63     .6       64       21         1.82    1.2        35       21
  90.0      449            7.1    3.4       48       15        .82     .8       55       21         1.97    1.3        30       20
 100.0      455           14.0    6.4        0        0       1.88    1.5        0        0         2.98    1.9         0        0
..........................................................SAMPLE CRUSHED TO PASS 14 MESH........................................
  50.0      268            4.0    1.5       73       10        .40     .4       78       16         1.68    1.1        43       22
  60.0      338            4.3    1.8       71       11        .42     .4       77       16         1.67    1.0        43       22
  70.0      394            4.7    2.1       67       11        .46     .4       75       17         1.67    1.0        42       22
  80.0      430            5.5    2.5       61       12        .54     .5       70       18         1.73    1.1        39       21
  90.0      440            7.0    3.4       50       12        .73     .7       62       19         1.89    1.3        34       20
 100.0      445           14.1    6.3        0        0       1.95    1.5        0        0         3.07    1.9         0        0

                          WEIGHT. PERCENT                        BTU PER POUND                  POUNDS OF SO2/M BTU
                      RAW: 100.0      SIGMA:   0.0           RAW: 12574     SIGMA:  1058         RAW:   4.9     SIGMA:   3.4

   BTU     NO OF         AVERAGE SIGMA  REDUCTION SIGMA       AVERAGE SIGMA  %INCREASE SIGMA       AVERAGE SIGMA  %REDUCTION SIGMA
RECOVERY SAMPLES
..........................................................SAMPLE CRUSHED TO PASS 1-1/2 INCHES...................................
  50.0      248           43.6    3.2       56        3      13673    635       14       10          2.6    1.6        45       20
  60.0      317           53.0    3.5       47        4      13821    663       12        9          2.7    1.7        44       19
  70.0      378           62.8    3.9       37        4      13740    705       11        8          2.8    1.8        41       19
  80.0      423           73.0    4.3       27        4      13635    710       10        7          3.0    1.9        37       18
  90.0      444           83.7    4.3       16        4      13452    770        8        6          3.3    2.2        30       16
 100.0      455          100.0    0.0        0        0      12563   1064        0        0          4.9    3.4         0        0
..........................................................SAMPLE CRUSHED TO PASS 3/8 INCH........................................
  50.0      211           43.4    3.2       57        3      13879    652       14       10          2.5    1.7        45       22
  60.0      306           52.7    3.6       47        4      13831    669       13        9          2.6    1.7        46       21
  70.0      365           62.2    4.0       38        4      13802    683       12        8          2.6    1.7        45       20
  80.0      426           72.5    4.4       28        4      13736    700       10        8          2.7    1.8        41       20
  90.0      449           83.2    4.4       17        4      13555    765        8        6          3.0    2.1        35       19
 100.0      455          100.0    0.0        0        0      12577   1057        0        0          4.9    3.3         0        0
..........................................................SAMPLE CRUSHED TO PASS 14 MESH........................................
  50.0      268           43.2    3.0       57        3      13919    665       15        9          2.4    1.6        50       21
  60.0      338           52.5    3.3       48        3      13934    669       14        8          2.4    1.6        50       20
  70.0      394           62.2    3.8       38        4      13916    679       12        8          2.4    1.6        48       20
  80.0      430           72.3    4.1       28        4      13811    684       11        7          2.5    1.7        45       20
  90.0      440           83.0    4.0       17        4      13596    777        9        6          2.9    2.1        39       19
 100.0      445          100.0    0.0        0        0      12582   1055        0        0          5.0    3.4         0        0
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INT.-BU.OF MINES,PGH.,PA. 20926